



# Courses of Instruction

PR = Prerequisite. These courses must be passed before enrollment in the course in question.

CR = Co-requisite. Must be taken concurrently with the course in question.

S-C&TC = Shared course, coordinated by Community & Technical College.

S-FSU = Shared course, coordinated by University.

~ = Courses are transferable as general studies credit to all other state institutions of higher education in West Virginia for credit with the grade earned.

## ACADEMIC DEVELOPMENT CENTER

**ACCS 1110 Online Tutorial Practicum.....1 hr.**

This course is designed to equip tutors with the necessary skills to effectively communicate with students in an individual and group setting. The course entails an orientation to tutorial procedures and assignments that emphasize specific skills such as tutoring special populations, tutoring study skills, and recognizing diverse response styles. The course is a requirement for all new tutors; instructor permission is required for registration.

## ACCOUNTING

**ACCT 3301 Intermediate Accounting I..... 3 hrs.**

Primarily the study of general financial accounting theory as it relates to balance sheet items. Included is a brief review of the accounting cycle and income recognition theory. Current tax regulations are considered where applicable. PR: BSBA 2202, BISM 2200, COMM 2200 COMM 2201 or COMM 2202.

**ACCT 3302 Intermediate Accounting II..... 3 hrs.**

A continuation of ACCT 3301, to include the study of corporate ownership equity and the analysis and interpretation of accounting data. PR: ACCT 3301, MATH 1112, ENGL 1102.

**ACCT 3303 Accounting Internship ..... 3 hrs.**

The internship course is designed as a learning experience which requires the integration of accounting theory with actual job experience in an accounting, industrial, or governmental organization. To be eligible for this experience, the student must be enrolled in the 4-year accounting program. The employer is responsible for evaluating and reporting the development of the student. This is a Credit/No Credit course. PR: ACCT 3302

**ACCT 3325 Intermediate Accounting III..... 3 hrs.**

A continuation of the study of financial accounting theory and practices. Topics include accounting for income taxes, pensions and other post-retirement benefits, leases, cash flows, and disclosure standards. PR: ACCT 3302.

**ACCT 3330 Advanced Accounting I..... 3 hrs.**

Includes accounting for special situations: partnerships, installment and consignment sales, home office-branch relationships, consolidations, and fund accounting. Attention is focused on the current AICPA position relative to these special accounting situations. PR: ACCT 3302.

**ACCT 3331 Advanced Accounting II..... 3 hrs.**

A continuation of ACCT 3330; exploration of advanced accounting topics. PR: ACCT 3330.

**ACCT 3350 Accounting Information Systems ..... 3 hrs.**

This course is designed to introduce students to accounting information systems. It focuses on understanding the different types of accounting systems, their internal controls (including security issues), development, and information systems auditing concepts. PR: BSBA 2202.

**ACCT 3399 Special Topics in Accounting ..... 1-6 hrs.**

Advanced studies in special selected topics, to be determined by the instructor and approved by the School Dean. Credits earned will be applicable as free electives in degree programs.

**ACCT 4404 Cost Accounting ..... 3 hrs.**

The relationship of cost accounting to the performance of management's pursuit of company objectives is studied with 4 basic points of view in mind: cost principle, determination, control and analysis. PR: BSBA 2202.

**ACCT 4405 Auditing ..... 3 hrs.**

A study of the philosophy, environment, and procedures of auditing, and the legal, social and professional responsibilities of the auditor. PR: ACCT 3302, ACCT 3350.

**ACCT 4406 Federal Income Tax Accounting: Individual ..... 3 hrs.**

This course covers preparation of income tax returns from the accounts of an individual; exclusions and inclusions for gross income, capital gains and losses, business expenses, and other deductions.

**ACCT 4407 Federal Income Tax Accounting: Partnership and Corporation ..... 3 hrs.**

Continuation of ACCT 4406, including preparation of income tax returns from accounts of partnerships, estates and trusts and corporations. While previous accounting knowledge or experience will be helpful, no prior accounting training is required. PR: ACCT 4406.

**ACCT 4408 Income Tax Return Preparation..... 3 hrs.**

Students will participate in the Volunteer Income Tax Assistance (VITA) program as administered through the Internal Revenue Service. Students must successfully pass the IRS certification exam. Once certified, students will prepare income tax returns primarily for low income and elderly taxpayers who cannot afford to pay for professional tax assistance. This course requires participation at various off-campus locations during arranged hours. This course may be repeated for credit. PR: ACCT 4406.

**ACCT 4410 Case Studies in Accounting..... 3 hrs.**  
*Writing Intensive*

This course is designed to provide stimulus for critical analysis of accounting, finance, and ethics problems. Emphasis is placed on research, organization of data, critical analysis, communication of conclusions, and presentation skills. Through case studies, students will enhance their problem-solving skills by formulating solutions to problems which are encountered in accounting environments. PR: ENGL 1102, ACCT 3325, ACCT 4405.

**ACCT 4998 Undergraduate Research .....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**ALLIED HEALTH****ALLH 1150 Introduction to Healthcare Professions .... 3 hrs.**

This course is designed to introduce students to the basic tenets of health and well-being, healthcare settings, and a variety of healthcare professions. Students will learn about different health professions, how health professions impact health and well-being, and the different settings in which healthcare professionals work. Emphasis will be placed on how roles within healthcare settings intersect to support the goal of personal and public health. (ALLH 1150 is the same course as SOCY 1150 and PSYC 1150; students may receive credit for the course only once).

**ALLH 1160 Exploration of Healthcare Professions..... 2 hrs.**

Students will explore healthcare settings through service learning projects. Students will partner with community groups/agencies that provide health-related services to citizens of North Central WV and beyond. Emphasis will be placed on teamwork, collaboration, and the achievement of personal and public health goals. This is a 2 credit course. (ALLH 1160 is the same course as SOCY 1160 and PSYC 1160; students may receive credit for the course only once). PR or CR: ALLH 1150 or SOCY 1150 or PSYC 1150

**ALLH 1199 Special Topics in Allied Health..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the School's dean. Credits earned will be applicable as free electives in degree and certificate programs. Course is offered as needed.

**ALLH 3341 Death and Dying ..... 3 hrs.**

This course provides a general overview of death and dying and related concepts. In addition to learning about the physical manifestations of death and dying, students will explore cultural perspectives, grief and bereavement, and ethical and legal issues associated with death and dying. Students will also discuss the role of healthcare professionals when caring for individuals and families experiencing death and dying. IOM recommendations for care of families and individuals at or near end of life are emphasized.

**ARCHITECTURE****ARCH 1000 Design Fundamentals I..... 4 hrs.**

This course addresses the basic graphic communications skills necessary to express architectural form using traditional methods. Topics include freehand, multi-view, paraline, perspective and shade/shadow drawing.

**ARCH 1050 Design Fundamentals II..... 4 hrs.**

The focus of this class is on digital media in architectural. Principles of digital image manipulation, composition and Building Information Modeling (BIM) will be introduced. PR: ARCH 1000

**ARCH 1199 Special Topics in Architecture ..... 1-6 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chairperson. Credits earned will be applicable as free electives in degree and certificate programs. Repeatable.

**ARCH 2000 Design I: Foundation..... 4 hrs.**

Introduction to basic principles of architectural design. Areas to be explored include: design theory, methods and processes; presentation drawing techniques; fundamentals of model making; and the application of the above to actual design projects. PR: ARCH 1050, CR: ARCH 2060

**ARCH 2010 Architectural History I..... 3 hrs.**

This course covers architectural history from prehistoric times through the Gothic period. The emphasis will be on the historical, social and technological factors behind the structures discussed.

**ARCH 2020 Architectural History II ..... 3 hrs.**

*Writing Intensive*

An overview of the key themes, historical developments, significant structures, and the personalities involved in shaping the world view and built environment from the 14th Century to the present. Emphasis will be given to the trajectory of Western culture while surveying and comparing the diverse thoughts and achievements of other cultures from across the globe during the same time period. PR: ENGL 1102 and ARCH 2010.

**ARCH 2050 Design II: Foundation..... 4 hrs.**

A continuing study of design methodology as applicable to the design of simple structures. Emphasis on tectonics, as well as the nature of materials and the site. Further development of sketching, graphic and modeling skills as students learn to understand, interpret, and represent spaces and receive further training in presentation skills. Students will develop a first-year design portfolio. PR: ARCH 2000

**ARCH 2060 Building Technology I ..... 4 hrs.**

Students will study practices utilized in the erection of residential buildings including architectural materials, methods and use, and structural, mechanical, and electrical systems. CR: ARCH 1000

**ARCH 3000 Design III: Site ..... 6 hrs.**

This course is a continuation of the design sequence, emphasizing synthesizing pragmatic issues of the site, context, and envelope with basic design theory. PR: ARCH 2050, ARCH 2020

**ARCH 3001 Community Design Assistance Center..... 3 hrs**

The Community Design Assistance Center is the outreach arm of the Architecture program. Focusing on projects within the small city context, student interns facilitate design and planning assistance for non-profit community organizations and groups. Repeatable. PR: Instructor Approval

**ARCH 3010 Sustainable Design ..... 3 hrs**

This course presents a sustainable approach to architecture considering social and economic issues; resource conservation through design of site, building envelope, and the building systems. PR: Junior Standing

**ARCH 3050 Design IV: Urban..... 6 hrs.**

This course explores architectural design within the urban setting. Topics Include urban design, historic preservation and the social impact of the built environment. PR: ARCH 3000

**ARCH 3060 Architecture Portfolio ..... 3 hrs.**

This course explores the methodology of creating professional and academic portfolios for Architecture students.

**ARCH 3080 Architectural Practice Program ..... 1-3 hrs**

This course offers students the opportunity for selected practical experience intermingled with an academic background. Students participate in the NCARB intern development program (IDP), working in a professional setting. Students meet with faculty to develop and assess progress toward completing the established learning goals. Repeatable PR: Instructor Approval

**ARCH 3085 Architecture Study + Travel ..... 3 hrs**

Architecture Study + Travel course offers students study in one of the world's great cities. The course's main objective is to facilitate a student's interconnections with architectural design, sustainability, and architectural history that have contributed to the life and culture of the city. This course will allow students to better understand the influence of the past on the present and ponder on the evolving future. In the classroom, students will study the history and culture of the region. In the field, they will visit important architecture, museums and historic sites. This course seeks to develop skills students will need in order to explore cultures and civilizations outside their own and encourage teamwork as they explore. Repeatable. PR: Instructor Approval

**ARCH 3399 Special Topics in Architecture ..... 1-6 hrs.**

This course provides students with further opportunities to study principles and concepts in selected areas of specialization, to be determined by the instructor and to be approved by the department chair. Credits earned will be applicable as free electives in degree and certificate programs. Repeatable.

**ARCH 4000 Design V: Technology..... 6 hrs.**

This course encompasses integrated design, synthesizing building systems, sustainable principles and a more complete approach to planning and design of commercial buildings. PR: ARCH 3050

**ARCH 4001 Community Design Assistance Center- Management..... 3 hrs**

This course is a continuation of ARCH 3001. The Community Design Assistance Center is the outreach arm of the Architecture program. Focusing on projects within the small city context, student interns facilitate design and planning assistance for non-profit community organizations and groups. Student interns share an expanded role in project management and leadership. Repeatable. PR: ARCH 3001 and Instructor Approval

**ARCH 4030 Mechanical and Electrical Systems ..... 4 hrs.**

This course is an introduction to the variety of principles and systems at work in a building. Topics emphasized: environmental resources, environmental control, life safety. CR: ARCH 4050

**ARCH 4050 Design VI: Build ..... 6 hrs.**

This course examines the relationship between the design process and the act of building. Concept and reality are studied, resulting in a built architectural object. PR: 4000

**ARCH 4060 Building Technology II ..... 4 hrs.**

This course investigates the building envelope, and select building systems explored through the creation of a set of working drawings for a commercial building. PR: ARCH 2060; CR: ARCH 4000

**ARCH 4080 Architectural Practice Program II ..... 1-3 hrs**

This course offers students the opportunity for selected practical experience intermingled with an academic background. Students participate in the NCARB intern development program (IDP), working in a professional setting. Students meet with faculty to develop and assess progress toward completing the established learning goals. Repeatable. PR: ARCH 3080 and Instructor Approval

**ARCH 4998 Special Topics in Architecture ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**ART****~ART 1120 S-FSU Art Appreciation ..... 3 hrs.**

This introductory course is a study of art of the Western and non-Western worlds. It explores the emergence of new forms and salient factors contributing to changes in art from prehistoric Europe to the contemporary West. The works of art are presented within their historical contexts.

**ART 1140 S-FSU Design I: 2D ..... 3 hrs.**

The elements and principles of two-dimensional design are explored in this Foundations course. Students learn the vocabulary of two-dimensional design, and apply scholarly responses to visual images. Students explore, through visual problem-solving, issues of composition, color theory, content, and presentation. Students work with a variety of two-dimensional media in this studio course. Reading and writing assignments accompany studio coursework.

**ART 1141 S-FSU Design II: 3D ..... 3 hrs.**

The elements and principles of three-dimensional design are explored in this Foundations course. Students learn the vocabulary of three-dimensional design, and apply scholarly responses to visual images. Students explore, through visual problem-solving, issues of space, inherent properties of materials, and content in the three-dimensional realm. Students work with a variety of three-dimensional media in this studio course. Reading and writing assignments accompany studio coursework.

**ART 1142 S-FSU Drawing I: Foundations of Drawing ..... 3 hrs.**

This introductory course focuses on the traditions of drawing. Space, form, value, proportion, and composition are emphasized for the development of the beginning student's ability to perceive and record forms on a two-dimensional surface. Students use a variety of drawing media as they work toward an understanding of the technical, expressive, and conceptual possibilities of mark-making.

**ART 1199 Special Topics in Art ..... 1-12 hrs.**

Studies in selected areas of specialization, to be determined by the instructor and approved by the School's Chair. Credits earned will be applicable as free electives in degree or certificate programs. Three hours maximum credit per semester.

**ART 2230 Gallery Management ..... 3 hrs.**

Gallery Management is a course designed to teach students the basic techniques and practices of a gallery curator or museum assistant. All phases of planning and implementing an exhibition, or a series of exhibitions, will be considered. Students will be involved in all aspects of the day-to-day management of the Brooks Gallery. May be repeated once.

**ART 2241 S-FSU Drawing II: Drawing from Life .. 3 hrs.**

Drawing from the posed model, accompanied by analytical studies of anatomy. PR: ART 1140 and 1142. Spring semester only.

**ART 2245 E. Foundations..... 3 hrs.**

This course is designed to introduce students to the elements and principles used in the production of contemporary works of art. Electronically based programs will be explored in conjunction with theories and practices of selected contemporary artists. Offered Fall and Spring.

**ART 2261 S-FSU Painting I: Foundations of Painting ..... 3hrs.**

Painting I is an introductory course in oil painting. Materials, tools, techniques, and stretcher construction are emphasized. Students explore the relationships among paint application, color theory, design elements, representation, and expressive intent. PR ART 1140 and 1142.

**ART 2262 Painting II: Intermediate Painting..... 3 hrs.**

Painting II continues concepts taught in Painting I, while utilizing the posed model as a subject. Students work to solve the complex expressive and formal problems that are present in painting the human figure. PR ART 2241 and ART 2261. Studio Art, Art Education or CFAT majors only. Spring semester only.

**ART 2283 S-FSU Sculpture I: Foundations of Sculpture ..... 3 hrs.**

This introductory course in sculpture explores materials, tools, techniques and design principles related to the creation of three dimensional objects. PR ART 1141.

**ART 2284 Sculpture II..... 3 hrs.**

Advanced work in various sculptural media: metal casting, carving, constructions, etc. PR: ART 2283.

**ART 3341 Printmaking I..... 3 hrs.**

Printmaking I is an introductory course in printmaking in which students learn to use basic tools, techniques, and equipment in the studio. Students explore the possibilities and limitations of the medium while applying design theory to serve an expressive intent. PR ART 1140 and 1142.

**ART 3342 Printmaking II..... 3 hrs.**

Printmaking II is an intermediate to advanced level printmaking studio course in which students utilize skills and processes learned in Printmaking I to further develop images in various media. PR: ART 3341.

**ART 3345 E. Intermediate..... 3 hrs.**

This course is designed around the knowledge learned in E. Foundations and is applied at an intermediate level. Students will be expected to use artistic approaches to electronic media and contemporary theory to solve studio problems. Class time will be given to the design and creation of original works of art. PR: ART 2245.

**ART 3350 Elementary Art Education ..... 3 hrs.**

An introduction to teaching art in the elementary classroom, the course focuses on fundamental principles of artistic development in children, and within that context, provides rationales and methodology for recognizing, creating and utilizing quality art curricula in elementary classrooms. National Standards in Art Education are used as the framework for content, skills, and materials utilized and applied in the course.

PR: Admittance into the School of Education.

**ART 3360 Early and Middle Methods and Materials ..... 4 hrs.**

Students will utilize current Art Education methodologies to examine the use of motivators, technology, management, assessment, and historical art examples in the Art classroom. Quality art lessons and objects will be produced with consideration to media and materials suitable to elementary and middle school situations.

Art Majors only.

**ART 3361 Painting III: Intermediate Landscape Painting ..... 3 hrs.**

Students explore the traditions of landscape painting as well as contemporary issues and forms related to land. Students may work in oil or acrylic for this intermediate level course. PR 2261, 2262. Spring semester only.

**ART 3362 Painting IV: Intermediate Figure Painting ..... 3 hrs.**

Students explore the traditions of figure painting as well as contemporary issues and forms related to the body. Students may work in oil or acrylic for this intermediate level course. PR 2262. Spring semester only.

**ART 3363 Intermediate Water Media I..... 3 hrs.**

Students use watercolor as the primary medium in this intermediate level course. Materials, techniques, and traditions of the medium are employed as students solve visual problems. Contemporary and traditional uses for water media are explored. PR 1141, 2241 Fall semester only.

**ART 3364 Advanced Water Media II ..... 3 hrs.**

Students experiment with technical processes of acrylics and other water media as they develop a series of works that are researched and developed individually. PR 3363 Fall semester only.

**ART 3374 Art History from Prehistory to 1450..... 3 hrs.**

*Writing Intensive*

The major monuments and periods of the history of art will be discussed within their historical and cultural contexts, from prehistory to the end of the Middle Ages. Students will be expected to understand the religious, political and technical concepts which underpin these ideas as they relate to Western and non-Western cultures. Offered once every year. PR: ENGL 1102.

**ART 3376 Art History from 1450 to 1750..... 3 hrs.**

*Writing Intensive*

The major movements and artists associated with the Renaissance, Baroque and Rococo movements will be investigated within their historical and cultural contexts. Students will consider the theory and criticism appropriate to these periods, together with primary texts produced by the artists. Offered once every year. PR: ENGL 1102.

**ART 3378 Art History from 1750 to 1950..... 3 hrs.**

*Writing Intensive*

This course will consider the major movements and artists from the Neo-Classical through the Modern periods. The monuments will be examined within the context of their historical, political and cultural milieu, with the theory and criticism of the various movements given serious study. Offered once every year. PR: ENGL 1102.

**ART 3380 Art History since 1950 ..... 3 hrs.**

*Writing Intensive*

The major movements and artists associated with the developments of European and American art since 1950 will form the basis for the course. The issues will be set within their historical, aesthetic and critical contexts. Both the history of art and of theory will be considered. Offered once every year. PR: ENGL 1102.

**ART 3383 Pottery I ..... 2-3 hrs.**

Introduction to basic ceramic techniques such as hand construction, the potter's wheel, and glazing.

- ART 3384 Pottery II .....2-3 hrs.**  
Advanced work in ceramics, glaze theory, and kiln firing. PR: ART 3383.
- ART 4431 Methods and Materials in Teaching Art ... 3 hrs.**  
This course is designed for students preparing to teach Art. Multiple Art Education methodologies will be examined and used to explore teaching Art in the secondary classroom. Students are expected to apply course materials in the writing of unit plans and other related class projects. PR: ART 3360. PPST (passing score)
- ART 4445 E. Advanced ..... 3 hrs.**  
An advanced E. Media class intended for students to continue ideas conceived in ART 3345 E. Intermediate and culminating in the creation of a body of work for studio or commercial purposes. PR: ART 3345.
- ART 4461 Painting V: Advanced Landscape Painting ..... 3 hrs.**  
Development of individual creative expression in oil or acrylic, working with the landscape. PR: ART 3361. Studio Art, Art Education majors only.
- ART 4462 Painting VI: Advanced Figure Painting ..... 3 hrs.**  
Development of individual creative expression in oil or acrylic while working with the live figure. PR: ART 3362. Studio Art, Art Education majors only.
- ART 4463 Advanced Painting Concepts ..... 3 hrs.**  
This advanced course gives students the opportunity to explore subjects and forms that they select. Students work with the professor in the studio to solve technical and formal problems, develop ideas, and research content. This is one of the preparatory courses for students who will be creating a body of work for their senior exhibits and graduate school portfolios. PR: ART 2262. Instructor approval required. Studio Art, Art Education.
- ART 4464 Pottery III ..... 3 hrs.**  
The student is permitted to select the medium and then explore all the technical and creative possibilities that it permits. PR: ART 3384.
- ART 4465 Sculpture III ..... 3 hrs.**  
The student is permitted to select the medium and then explore all the technical and creative possibilities that it permits. PR: ART 2284.
- ART 4467 Area Studies I ..... 3 hrs.**  
Area Studies is an independent study course with options in Drawing, Painting, Ceramics, Sculpture, and Cross Media. Students meet with mentor professors regularly to discuss works. Mandatory critiques are held with a group of art faculty. PR: Completion of at least one 3000 level course in the medium that the student selects. Instructor approval required. Studio Art, Art Education, majors only.
- ART 4468 Area Studies II ..... 3 hrs.**  
Area Studies is an independent study course with options in Drawing, Painting, Ceramics, Sculpture, and Cross Media. Students meet with mentor professors regularly to discuss works. Mandatory critiques are held with a group of art faculty. PR: Completion of at least one 3000 level course in the medium that the student selects. Instructor approval required. Studio Art, Art Education, majors only.
- ART 4469 Area Studies III ..... 3 hrs.**  
Area Studies is an independent study course with options in Drawing, Painting, Ceramics, Sculpture, and Cross Media. Students meet with mentor professors regularly to discuss works. Mandatory critiques are held with a group of art faculty. Completion of 3000 level courses in the medium that the student selects. May be taken twice for credit. Instructor approval required. Studio Art, Art Education, majors only. PR: ART 4467 or ART 4468.
- ART 4471 Capstone Experience in Art ..... 3 hrs.**  
This course is required of Studio Art and Art Education majors during their senior year. Students organize and present a formal

exhibition of selected recent work. For Studio Art majors, research is related to studio practice and preparation of materials for promotion and discussion of their body of work. Art Education majors may select a project based on education theory and studio practice or possible collaboration with a PDS, as appropriate to college courses and experience. Digital images of this work will be retained in the Art Department's archives. Studio Art and Art Education majors only. Instructor approval required.

- ART 4472 Virtual Exhibition ..... 3 hrs.**  
Virtual Exhibition is the capstone experience for Contemporary Fine Arts in Technology and Cross-Media majors. Students research current trends in digital media, and present an exhibition of their most recent electronic and/or cross media or multi-media work. Digital images of all work submitted for exhibition will be retained in the Art Department's archives. Cross-Media Studio Art majors only. Instructor approval required.

- ART 4998 Undergraduate Research ..... 0-6 hrs.**  
Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Art and Studio Art Majors only. Instructor approval required.

## AVIATION ADMINISTRATION

- AVMA 1100 Aircraft Flight Theory ..... 3 hrs.**  
A study of the subject areas and information needed to operate as a private pilot in the aviation environment. Must have a "C" grade or better to pass.
- AVMA 1101 Private Pilot Technology ..... 3 hrs.**  
The course is designed to provide successful Private Pilot candidates with the basic skills and knowledge necessary for certification as a Private Pilot under Part 141, Appendix B, of the Federal Air Regulations. The course will consist of approximately 45 contact hours of classroom based ground school instruction. Students are expected to immediately take the Private Pilot Knowledge Test upon completion of their Private Pilot Ground School component. This course requires the purchase of an online laboratory experience to accompany and supplement the face-to-face class meetings. The Aviation Fees schedule is published elsewhere in this catalog.
- AVMA 1102 Introduction to Air Traffic Control ..... 3 hrs.**  
This course provides a description of basic air traffic control procedures and phraseology used by personnel providing air traffic control services. Topics include the history of air traffic control, definitions, basic phraseology, airspace utilization, and air navigation and Federal Aviation Administration rules governing air traffic control. Must have a "C" grade or better to pass.
- AVMA 1103 Private Pilot Technology Flight Lab ..... 3 hrs.**  
After successfully completing the lab requirements under Part 141, Appendix B, of the Federal Aviation Regulations, students will be endorsed to take the Private Pilot Practical Flight Exam. Five hours of the Private Pilot flight training may be conducted in the Flight Training Device (FTD). Upon completion of all flight requirements, in accordance with Practical Test Standards, students will be issued a Private Pilot Certificate. This course requires additional fees to be paid for flight instruction and simulator time. The Aviation Fees schedule is published elsewhere in this catalog.
- AVMA 1109 Air Rescue Fire Fighting ..... 3 hrs.**  
This course is designed to provide the beginning student with a basic understanding of the principles and methodology of Air Rescue

and Fire Fighting in aircraft incidents both on and off the airfield. It reviews the physics of fire and the different types of fires that are extinguished during the first responders handling of different aircraft emergencies. The student will be able to identify the different types of firefighting retardants and the correct application of each. The student will be trained in the correct procedures for approaching aircraft in emergency situations, gaining access to crashed aircraft, the safe extraction of survivors, and basic triage procedures. The students will also be able to explain how to secure a crash site and the damaged aircraft. They will also have an understanding of the handling of hazardous materials at the scene of an incident. PR: Major in Homeland Security. Must have a "C" grade or better to pass. Aviation or Homeland Security majors only.

**AVMA 1189 Guided Experience I ..... VAR 1-4 hrs.**

This course will be a guided experience for community college students to explore topics of interest in their field through research, field experience, presentation, computer applications, lab experience, or other project agreed upon between the student and the supervising faculty and is submitted to the director in a written contract. Credits earned may be applied as free electives in degree or certificate programs. May be repeated for up to 4 hours. Instructor approval required.

**AVMA 1199 Special Topics..... 1-12 hrs.**

A study of special topics of educational, technical or industrial concern. Must have a "C" grade or better to pass.

**AVMA 2201 Instrument Pilot Technology ..... 3 hrs.**

The course is designed to provide successful Instrument Pilot candidates with the basic skills and knowledge necessary for certification as Instrument rated Private Pilot in accordance with the minimum requirements as set forth in Part 141, Appendix C, of the Federal Air Regulations. The course will consist of approximately 45 contact hours of classroom based instrument ground school instruction. Students will be expected to immediately take the FAA approved Instrument Pilot Airman Knowledge Test upon completion of their Instrument Ground School component. This course requires the purchase of an online laboratory experience to accompany and supplement the face-to-face class meetings. The Aviation Fees schedule is published elsewhere in this catalog. PR: Private Pilot certification or Instructor Permission.

**AVMA 2204 Instrument Pilot Technology Flight Lab.... 3 hrs.**

The lab portion of this course is designed to provide successful Instrument Pilot candidates with the basic skills and knowledge necessary for certification as Instrument rated Private Pilot in accordance with the minimum requirements as set forth in Part 141, Appendix C, of the Federal Aviation Regulations. Students are required to have a minimum of 35 hours of logged instrument flight training (total flight hours may vary depending on individual student ability). Fourteen hours of the instrument flight training may be conducted in a Flight Training Device (FTD). Students will be signed-off to take the Instrument Pilot Practical Flight Exam required for FAA certification upon successful completion of all flight requirements. This course requires additional fees to be paid for flight instruction and simulator time. The Aviation Fees schedule is published elsewhere in this catalog. PR: Private Pilot certification. Must have a "C" grade or better to pass.

**AVMA 2206 Aviation Security ..... 3 hrs.**

This course is designed to provide the beginning student with a basic understanding of the history of aircraft security in the aviation industry. The changing nature of aviation security over the years and how it has impacted society will be discussed. It will discuss and analyze the different methodologies of aviation security both in domestic and foreign methodologies. The course will also examine the industries responses to the changes in aircraft security in both general, corporate, and transport aviation. It will also address the needs of aviation personnel for security both in the air and on the ground. PR: Major in Homeland Security or Pre-Homeland Security. Must have a "C" grade or better to pass. Aviation or Homeland Security majors only.

**AVMA 2207 Aviation Safety..... 3 hrs.**

This course introduces the student to various aspects of aviation safety, including flight safety, ground safety and management and planning for safety in aviation. Case studies of individual aviation incidents, safety studies and accidents will be presented. The course is also listed as AVMA 3307 for Baccalaureate majors.

**AVMA 2210 Aviation Meteorology..... 3 hrs.**

A survey of the basic concepts and processes of atmospheric phenomena and their relation to aeronautical conditions. Must have a "C" grade or better to pass.

**AVMA 2211 Airport Management..... 3 hrs.**

This course presents a study of airfield operations, and management with a focus on the role of the airport manager, the role of the airport in the community, budgeting, marketing and tenant relationships. Must have a "C" grade or better to pass.

**AVMA 2213 Airport Planning and Development..... 3 hrs.**

The principles of airport system planning and airport master planning will be studied. Airport design standards, historical evolution of airports, key airport legislation and environmental impact planning for airports are key course topics. Must have a "C" grade or better to pass.

**AVMA 2214 Advanced Air Traffic Control Procedures . 3 hrs.**

This course is designed to prepare the student to successfully complete the FAA Air Traffic Controller screening exams. Topics covered include: Tower procedures, aircraft separation, departures/arrivals, and special procedures. Must have a "C" grade or better to pass.

**AVMA 2225 Airline Transport Security ..... 3 hrs.**

This course is designed to provide the beginning student with a basic understanding of the airline transport security system currently in use at major airports around the world. The student will be trained in security considerations at both the airport terminal and in the air. The student will be familiar security requirements as set by the Transportation Security Administration.

The student will demonstrate knowledge of security responsibilities of screeners and other security personnel, submission to screening and inspection, procedures security and handling of interference with screening personnel, carriage of weapons, explosives, and incendiaries by individuals. The student will demonstrate knowledge of security of a secured area, security of the air operations area, security of the security identification display area, access control systems, and Law enforcement support. The student will be trained in procedures currently in place to provide in-flight safety of the crew and airline passengers. Must have a "C" grade or better to pass. Aviation or Homeland Security majors only.

**AVMA 2230 Certified Flight Instructor ..... 3 hrs.**

This course provides the Pilot Technology students the basic knowledge required to pass the FAA Fundamentals of Instruction and Flight/Ground Instructor knowledge Exam. Furthermore this course will increase your knowledge of flight operations and allow you to master new skills. The student will gain understanding of the fundamentals of instruction, the Federal Aviation Regulations as well as the principles of teaching, private, commercial, and instrument students.

**AVMA 2231 Certified Flight Instructor Flight Lab..... 3 hrs.**

This course lab provides the Pilot Technology students with the basic knowledge required to pass the FAA Fundamentals of Instruction and the Flight/Ground Instructor knowledge exam. Furthermore this course will increase your knowledge of flight operations and enable the student to master new skills required by the Federal Aviation Administration (FAA). The student will gain an understanding of the fundamentals of instruction, the Federal Aviation Regulations as well as the principles of teaching, private, commercial, and instrument students. This course may be taken after completion of CFI Certification by FAA. This course requires additional fees to be paid for flight instruction and simulator time. This course will be completed under FAA Regulations, Part 61. For flight hours and cost, please consult with the Flight Manager or Chief.

**AVMA 2289 Guided Experience II .....VAR 1-4 hrs.**

This course will be an advanced guided experience for community college students to explore topics of interest in their field through research, field experience, presentation, computer applications, lab experience, or other project agreed upon between the student and the supervising faculty and is submitted to the director in a written contract. Credits earned may be applied as free electives in degree or certificate programs. May be repeated for up to 4 hours. Instructor approval required.

**AVMA 2299 Special Topics..... 1-12 hrs.**

A study of special topics of educational, technical or industrial concern. Must have a "C" grade or better to pass.

**AVMA 3300 Commercial Pilot Technology ..... 3 hrs.**

The course is designed to provide successful Commercial Pilot candidates with the advance skills and knowledge necessary for certification as Commercial Pilot in accordance with the minimum requirements set forth in Part 141, Appendix D, of the Federal Aviation Regulations. The course will consist of approximately 45 contact hours of classroom based Commercial Pilot Ground School instruction. Students will be expected to immediately take the FAA approved Commercial Pilot Airman Knowledge Test upon completion of their Commercial Pilot Ground School component. This course requires the purchase of an online laboratory experience to accompany and supplement the face-to-face class meetings. The Aviation Fees schedule is published elsewhere in this catalog. PR: Private Pilot and Instrument Pilot certifications or Instructor approval required.

**AVMA 3301 Aviation History..... 3 hrs.**

This course traces man's effort to achieve and sustain flight, from early mythology to the present. Special emphasis is given to the evolution of the airplane from balloons to space exploration vehicles. PR: ENGL 1102.

**AVMA 3302 Aviation Law..... 3 hrs.**

A study of the legal issues and case law/decisions affecting the aviation industry. Topics covered include contracts, liabilities, rights of operators, criminal statutes and the U.S. legal system, as applied to aviation. PR: ENGL 1102.

Course also listed as AVMA 2202 for Homeland Security Aviation Track Majors.

**AVMA 3303 Airline Operations..... 3 hrs.**

A study of the administrative aspects of airline operation and management, including a detailed study of airline organization, structure and operational issues. Topics to be covered include airline history, economics, pricing, marketing, fleet planning and labor relations. A case study approach will be used to study individual airlines and/or airline-related issues. Course also listed as AVMA 2203 for Homeland Security Aviation Track Majors. PR: ENGL 1102.

**AVMA 3304 Aviation Maintenance Management..... 3 hrs.**

This course provides instruction concerning the functions and responsibilities of the aviation maintenance manager. Maintenance management in general aviation, regional airlines and major and national airlines will be studied. PR: ENGL 1102.

**AVMA 3305 General Aviation Operations..... 3 hrs.  
*Writing Intensive***

A study of the general aviation industry, including general aviation aircraft manufacturing, fixed-base operations and corporate flight departments. A basic definition of general aviation, its role and major components will be covered. The course also has a business development assignment during which the students develop and present a business plan for a proposed aviation company. The course is also listed as AVMA 2205 for Homeland Security Aviation Track Majors. PR: ENGL 1102.

**AVMA 3306 Commercial Pilot Technology Flight Lab. . 3 hrs.**

The lab portion of this course is designed to provide successful Commercial Pilot candidates with the basic flight skills and knowledge necessary for certification as Commercial Pilot in accordance with the minimum requirements set forth in Part 141,

Appendix D, of the Federal Aviation Regulations. Students are required to have minimum of 120 hours of logged Commercial Pilot Flight Training (total flight hours may vary depending on individual student ability). Twenty-Five hours of the Commercial Pilot flight training may be conducted in a Flight Training Device (FTD). Students will be signed off to take the Commercial Pilot Practical Flight Exam for final FAA certification upon successful completion of all flight requirements. This course requires additional fees to be paid for flight instruction and simulator time. The Aviation Fees schedule is published elsewhere in this catalog. PR: Private Pilot and Instrument Pilot certifications or Instructor approval required.

**AVMA 3307 Aviation Safety ..... 3 hrs.**

This course introduces the student to various aspects of aviation safety, including flight safety, ground safety and management and planning for safety in aviation. Case studies of individual aviation incidents, safety studies and accidents will be presented. Baccalaureate majors only. The course is also listed as AVMA 2207 for Homeland Security Aviation Track Majors. PR: ENGL 1102.

**AVMA 3399 Special Topics..... 1-12 hrs.**

A study of special topics of educational, technical or industrial concern. PR: Instructor approval required.

**AVMA 4401 Aviation Industry Research and Analysis .. 3 hrs.**

This course presents an analysis of selected contemporary issues, problems and trends facing various segments of the aviation industry (manufacturers, airlines, general aviation and government). Students will apply previously learned principles to practical problems in the aviation industry. PR: Instructor approval required.

**AVMA 4402 Fiscal Aspects of Aviation Management... 3 hrs.**

This course will provide an introduction to financial management problems encountered in aviation management. Topics include basic accounting, financial management principles, cash flow analysis, budgeting, and financial statement analysis. PR: ENGL 1102.

**AVMA 4403 Aviation Project ..... 1-4 hrs.**

Independent study, primarily for seniors who wish to pursue further studies in special areas. Subject must be arranged with the instructor before enrolling in the course.

**AVMA 4404 Advanced Composite Structures ..... 3 hrs.**

An in-depth study of the inspection and repair of aircraft composite structures. Baccalaureate majors only.

**AVMA 4405 Advanced Non-Destructive Testing ..... 3 hrs.**

A detailed study of non-destructive testing methods used on aircraft. This course prepares the student for ASNT Level I certification. Baccalaureate majors only.

**AVMA 4411 Aviation Industry Internship ..... 3 hrs.**

An aviation industry internship is a real-world learning activity that provides an opportunity for the student to engage in aviation industry activities in an area of concentration that may assist them in their future career development activities. These activities in their major discipline under the guidance of a senior aviation faculty member will develop a program of study that will acquaint them with industry trends and processes that will be beneficial in their new career plans. The primary goals for this class are to experience the aviation industry on a first hand basis and then shared those experiences in an appropriate venue with their assigned faculty mentor. This class should only be scheduled by juniors or seniors close to graduation after completion of a majority of their core classes. Instructor approval is required and the internship must be scheduled before the start of the semester the student plans to complete the course requirements. Junior or Senior Level attainment. Instructor approval required.

**AVMA 4499 Special Topics..... 1-12 hrs.**

A study of special topics of educational, technical or industrial concern. Instructor approval required.

**AVMA 4998 Undergraduate Research .....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**BIOLOGY****BIOL 1104 Biosphere ..... 4 hrs.**

This course, designed for teacher education candidates, focuses on Earth's living systems. The major topics to be explored include biodiversity and populations (including evolution and systematics), ecosystems (nutrient cycles, trophic levels, biomes) and organisms (including life cycles, genetics, cells, and adaptations). The course includes integration of basic chemistry and atmospheric science. 4 hours of lecture/ discussion/activities per week. PR: Elementary Education majors only.

**~ BIOL 1105 S-FSU Biological Principles I ..... 4 hrs.**

This introductory course in population biology explores the organization and function of populations, including reproduction and transmission genetics, patterns and mechanisms of evolutionary change and the fundamental concepts of ecology. 3 hours of lecture and one 3-hour laboratory per week. PR: A score of 21 or better on the ACT Science Reasoning section or SCIE 1100 with a C or better or BIOL 1106 with a C or better. Fall semester only.

**~ BIOL 1106 S-FSU Biological Principles II ..... 4 hrs.**

This introductory course in cellular biology emphasizes the organization and functions common to all living cells. The major topics to be explored include cell organelle structure and function, the molecular basis of cell energetics, the cell cycle and basic molecular biology of the cell. 3 hours of lecture and one 3-hour laboratory per week. PR: A score of 21 or better on the ACT Science Reasoning section or SCIE 1100 with a C or better or BIOL 1105 with a C or better. Spring semester only.

**BIOL 1180 Human Anatomy and Physiology (lecture) ..... 3 hrs.**

Human Anatomy and Physiology is single semester examination of the architecture and function of cells, tissues, organs, and organ systems of the human being. This examination will include an intensive and detailed study of the integumentary, skeletal, muscular, cardiovascular, lymphatic, digestive, respiratory, urinary, nervous, reproductive, and endocrine systems as well as their interactions with each other. Three hours of lecture per week.

**BIOL 1181 Human Anatomy and Physiology (lab) ..... 1 hr.**

Complementary to BIOL 1180, the laboratory focuses on the anatomical study of the human form, including microscopic examination of cells and tissues, and gross examination of organs and organ systems (skeleton, muscles, blood vessels, nerves, and internal organs). Physiological exercises to supplement the material covered in BIOL 1181.

**BIOL 1199 Special Topics in Biology ..... 1-4 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chair. Credits earned will be applicable as free electives in degree and certificate programs.

**BIOL 2202 General Botany ..... 4 hrs.**

The first part of this course will consist of a survey of the plant kingdom, including the fungi kingdom and selected groups of plant-like protists and bacteria. In the second part, the structure, development, and physiology of angiosperms will be examined. 3 hours of lecture and one 3-hour laboratory per week. PR: BIOL 1105 and 1106 with a C or better. Spring semester only.

**BIOL 2203 General Zoology ..... 4 hrs.**

A survey of the animal kingdom, this course emphasizes selected invertebrates and vertebrates. The focus will be on diversity and the significance of evolutionary changes. Students will investigate the basic concepts of morphology, anatomy, physiology and behavior as they affect the ecology of the animal. 3 hours of lecture and one 3-hour laboratory per week. PR: BIOL 1105 and 1106 with a C or better. Fall semester only.

**BIOL 2205 Technical Microbiology (Lecture) ..... 3 hrs.**

This course emphasizes the history of microbiology, microbial morphology and structure; microbial growth and physiology; environmental effects on bacteria; inhibition and killing of bacteria; virulence, pathogenicity, and invasiveness of microbes; modes of disease transmission and resistance. 3 hours of lecture per week.

**BIOL 2206 Technical Microbiology (lab) ..... 1 hr.**

This course teaches techniques of isolation; handling, culturing, identifying bacteria and the inhibition of bacterial growth. Safety, cleanliness, and responsibility are taught in the laboratory. One two-hour lab per week.

**BIOL 2224 Microbiology ..... 4 hrs.**

In this course, microorganisms (primarily bacteria) will be viewed from several perspectives; as pathogens, as components of ecosystems, and as components of industrial processes. Techniques for culturing and identifying bacteria will be presented. The course includes opportunities for students to design and conduct laboratory exercises. 3 hours of lecture and one 3-hour laboratory session per week. PR: BIOL 1105 and 1106 with a "C" or better, and CHEM 1105. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 3306 Fundamentals of Ecology ..... 4 hrs.**

This course explores the fundamental principles of modern ecology: the patterns and processes operating in populations, communities and ecosystems. Population growth and regulation, energy flow, population interactions and nutrient cycling will be emphasized. Students will learn quantitative methods, use field techniques, and practice the scientific method. 3 hours of lecture and one 3-hour laboratory per week. PR: BIOL 2202 and 2203, with a C or better, and CHEM 2200. Fall semester only.

**BIOL 3312 Advanced Botany I ..... 4 hrs.**

This course provides an in-depth study of the plant kingdom. Primary emphasis is placed on the flora of WV, with an understanding of the structural characteristics, evolutionary relationships and ecological distribution of plants. 3 hours of lecture and one 3-hour laboratory per week. Lab activities include several off-campus field trips and each student will be required to complete a plant collection project for the FWVA Herbarium. PR: BIOL 2202 with a C or better. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 3315 Invertebrate Zoology ..... 4 hrs.**

This course surveys the invertebrate phyla as they have evolved from single cell protists to multicellular organisms focusing on the Hexapods. Also considered are the attributes of these organisms that have allowed them to radiate from aquatic to terrestrial environments. As part of the course students are required to collect insects during the summer preceding the course. The course has 3 hours of lecture and 1 three hour lab per week. PR: BIOL 2202 and 2203 with a C or better, and CHEM 2200. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 3316 Vertebrate Zoology ..... 4 hrs.**

An in-depth investigation of vertebrates, this course focuses on the evolutionary relationships among the major vertebrate groups, with an emphasis on physiological, morphological and behavioral adaptations, especially as they influence the ecology of the animal. 3 hours of lecture and one 3-hour laboratory per week. PR: BIOL 2203 with a C or better. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 3330 Aquatic Ecology..... 4 hrs.**

This course focuses on physical and biological aspects of freshwater lakes and streams, emphasizing the application of ecological theory. Lectures will cover lentic (lake) and lotic (stream), wetlands and groundwater ecology. The laboratories are field-oriented and allow students the opportunity to use state-of-the-art instrumentation while applying lessons learned in the classroom. 3 hours of lecture and one 3-hour laboratory per week. PR: BIOL 3306 with a C or better. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 3331 Terrestrial Ecology..... 4 hrs.**

This course will start with the foundation from Fundamentals of Ecology and examine more closely the relationships between organisms and their terrestrial environment. A number of different ecological sampling and research methods will be studied and utilized. 3 hours of lecture and one 3-hour laboratory per week. PR: BIOL 3306 with a C or better. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 3360 Biochemistry..... 4 hrs.**

A study of general principles of biochemistry. Topics include structure and function of proteins, DNA, and RNA, enzyme kinetics, regulation, carbohydrates, lipids, membranes and metabolism. 3 hours lecture and one 3-hour laboratory per week. PR: CHEM 2201, MATH 1185 or 1190. Spring semester only.

**BIOL 3368 Animal Physiology..... 4 hrs.**

This course explores the fundamental functional processes of animals. Major topics may include energetics, digestion, neurology, endocrinology, immunology, muscle physiology, circulatory physiology, respiratory physiology, osmoregulation and thermoregulation. The emphasis will be on the investigation of physiological processes as evolutionary adaptations. Students will cooperatively design and complete research projects. 3 hours of lecture and one 3-hour lab per week. PR: BIOL 2203 with a C or better, CHEM 2200. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 3370 Plant Physiology..... 4 hrs.**

Plant physiology is the study of how plants function. Major topics will include transpiration, plant nutrition, photosynthesis, hormone regulation of plant development, plant movement and responses to environmental stresses. Students will be expected to design and complete physiology research projects. 3 hours of lecture and one 3-hour laboratory per week. PR: BIOL 2202 with a C or better, and CHEM 2200. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 3380 Genetics..... 4 hrs.**

This course builds upon genetic principles introduced in Biology 105 and 106. Topics covered include extensions of Mendelian genetics, gene mapping, chromosomal structure and mutation, DNA replication, mutation and repair and gene expression and its regulation. 3 hours of lecture and one 3-hour laboratory session per week. PR: CHEM 2200, BIOL 1105 and 1106. Fall semester only.

**BIOL 3390 Molecular Biotechnology..... 4 hrs.  
*Writing Intensive***

This course is a study of the theoretical basis of techniques used in biotechnology, and the application of these techniques to biological research in academic and industrial settings. 3 hours of lecture and one 3-hour laboratory per week. PR: ENGL 1102, BIOL 3380, CHEM 2201, and either MATH 1185 or MATH 1190. Spring semester only.

**BIOL 4420 Developmental Biology..... 4 hrs.**

This course contains a detailed study of gametogenesis, fertilization and embryonic development patterns of organisms. The role of gene expression in these events will be emphasized. 3 hours of lecture and one 3-hour laboratory per week. PR: BIOL 2202 and 2203 with a C or better. Offered on rotation. See Biology program website for rotation schedule.

**BIOL 4485 Senior Seminar..... 2 hrs.**

This culminating experience requires students to utilize their knowledge of biology, as well as their analytical and critical thinking skills, to explore important topics in the biological sciences in a cooperative learning environment. Students will be expected to read, interpret, moderate discussions and formally present information from current research and review papers to an audience of their peers and biology faculty. Two hours of class meeting per week. PR: Senior standing. Spring semester only.

**BIOL 4495 Problems in Biological Sciences..... 2 hrs.**

This course is designed for students who have interest in a specific problem in biology. It should not be used as a means of meeting requirements but rather as a research course that goes beyond the usual courses in developing the student's body of knowledge. PR: 20 hours of biological courses and Instructor approval required.

**BIOL 4998 Undergraduate Research..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**(BUSINESS) INFORMATION SYSTEMS  
MANAGEMENT****BISM 1200 Introduction to Computing..... 3 hrs.**

This course provides an overview of the current state of computing and its social implications. This is intended to be used as a breadth-first introductory course for majors and non-majors. Topics include organization of a computer system, examination of computing disciplines, social implications of computing, problem solving using productivity software applications, and investigations of emerging areas in information systems.

**BISM 2200 Business Information Tools..... 3 hrs.**

This course focuses on fluency in computerized information systems technology along with how information is collected, stored, organized, and managed to facilitate effective decision-making. Students will create and use databases and spreadsheets to assist in the setup and resolution of business problems. The functionality within Microsoft Excel will be used to carry out "what-if" business scenarios, sensitivity analysis, statistical analysis, and graphic displays. Microsoft Access will be utilized to design, create, implement, and query databases. PR: BISM 1200, and Math ACT score of 19 or MATH 1100 or higher, or instructor permission

**BISM 2400 Operating Systems Concepts Across the  
Enterprise..... 3 hrs.**

This course explores hardware and software configurations as integrated systems and provides a basic understanding of what an operating system is and how it works in a PC/server and Mainframe environment. Fundamental concepts such as computer architecture are presented along with the execution concepts related to multiple operating systems. Operating systems, such as MS-DOS and Windows, Linux, UNIX, Linux on System z, z/VM, z/TPF, and the z/Enterprise System will be examined. PR: BISM 1200

**BISM 2600 Introduction to Networking  
Administration..... 3 hrs.**

This course examines detail issues and techniques in computer networking. Emphasis is placed on local area networks, internetworking via TCP/IP and the Internet. The OSI reference model and the TCP/IP protocols form the framework. Topics include the key aspects of networking, interoperability, LAN strategies, WLAN strategies and standards such as shared and switched

Ethernet, Token Ring and FDDI; internetworking using bridges and routers; routing strategies and congestion in networks along with how data passes through layers. PR: BISM 1200

**BISM 2800 Corporate Communications and Technology ..... 3 hrs.**

*Writing Intensive*

This course will focus on applying technology to support technical writing, oral presentations and online communications. This includes conducting research using the online library resources, developing reports using advanced word processing report features, integrating spreadsheet and database applications within the word processing document to automate data updates, using online document sharing applications for concurrent reviews and configuration management, and preparing and giving formal presentations, and formal reports. In addition, the course will introduce teamwork concepts and online networking through the development of business communications. PR: BISM 1200 and ENGL 1102

**BISM 3000 Business Programming Logic ..... 3 hrs.**

This course introduces problem-solving and programming logic for business applications. Students will learn fundamental problem-solving techniques that are necessary to develop computer applications to solve business problems. Students will also be introduced to the Visual Basic programming language. PR: BISM 2200

**BISM 3200 Management Information Systems ..... 3 hrs.**

This course focuses on the fundamentals associated with the management of information systems and technology in a dynamic business environment. Special emphasis is placed on managerial issues that are relevant to selection, application, and usage of computerized information systems in a business enterprise. Topics covered include the MIS framework, ethics, technology, information systems collaboration, decision-making, competitive advantage, telecommunications, databases, data communication, E-commerce, Supply Chain, and information systems management. PR: BISM 2200

**BISM 3400 Database Design and Development ..... 3 hrs.**

This course covers information systems design and implementation within a database system environment. Students will be introduced to relational database technology through the use and application of terminology, technical concepts, data modeling, structured query language (SQL), and database implementation. The course includes hands-on experience with data modeling and SQL. PR: BISM 2200

**BISM 3600 E-commerce and Web Development Strategy ..... 3 hrs.**

This course covers emerging online technologies and trends and their influence on the electronic commerce marketplace. Students will learn building blocks of web technology and various revenue. This course will also explore current issues surrounding electronic commerce and electronic business including security, privacy, and search engine optimization. Finally, students will learn how to plan for electronic commerce. PR: BISM 3000, BISM 3200, BISM 3400

**BISM 3800 Object-oriented Business Applications ..... 3 hrs.**

This course introduces multitier programming in Visual Basic. Students will apply object-oriented programming techniques for developing the presentation, business, and data tiers for database application projects. The emphasis of projects is on business applications. PR: BISM 3000

**BISM 4000 Global, Economic, Ethical, and Social Information Systems ..... 3 hrs.**

*Writing Intensive*

This course explores the tools students will need when confronted with ethical decisions in their role as global technology professionals. Students will address a variety of economic, ethical, and social frameworks in a global context. Case studies are used to foster discussions on subjects specifically related to computers and information systems. The course explores information technology in its social, economic, ethical, and global contexts. The student will be

required to participate in class discussions, cases studies, and present a research paper on the issues surrounding computing and a national and international society. PR: BISM 2800, BISM 3200

**BISM 4200 Systems Analysis and Design ..... 3 hrs.**

Students are introduced to the theory and application of systems analysis and design techniques for computerized information systems. Topics covered include requirements collection and analysis, logical and physical information flow modeling, a variety of system development methodologies, data modeling, object-oriented analysis and modeling, prototyping, project control, sampling techniques, project feasibility, cost/benefit analysis, time value of money, and the hands-on application of systems design techniques through a course project. PR: BISM 2600, BISM 3600, BISM 3800

**BISM 4300 Business Intelligence ..... 3 hrs.**

This course is an overview of the business intelligence process including information collection, intelligence analysis, and intelligence process assessment. According to the Gartner Group, "In a data-rich world, businesses are inundated with information. Yet used strategically, it can guide decision making and boost performance. That's why Business Intelligence is on every CIO's must-have list." This course is not based merely on learning concepts, but also applying those concepts to facilitate business processes in a team effort. PR: Instructor Approval

**BISM 4400 Current Topics in Information Systems ..... 3 hrs.**

This course investigates current topics in information systems. Current topics of interest in information systems will be selected by the instructor and approved by the department. Examples of topics include telecommunications, grid computing, health informatics, data visualization, etc. PR: BISM 3200

**BISM 4800 Information Systems Project Management ..... 3 hrs.**

This course explores best practices in formal project management concepts and techniques. Students will learn the Project Management process areas and Knowledge Management areas as defined by the Project Management Body of Knowledge (PMBOK). The project outputs and required documentation for each process area are emphasized. The project management concepts and techniques presented in the course will be applied to group projects. Students will apply project management software to manage an information systems-related project. PR: MGMT 3500, BISM 4200

**BISM 4900 Internship in Information Systems ..... 3 hrs.**

This internship course is designed as a learning experience which requires the integration of information systems theory with actual job experience. The student must be enrolled in the Information Systems Management program. The employer will be responsible for evaluating and reporting the performance of the student. PR: Instructor Approval

**BISM 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## BUSINESS ADMINISTRATION

**~ BSBA 2200 S-FSU Economics ..... 3 hrs.**

Economics is a General Studies course for non-business majors, which provides the student with a broad background in the field. The student will be exposed to micro- and macroeconomic theory and international economics, and should develop adequate knowledge

to understand the role of economic systems and the application of economic principles in modern society.

**BSBA 2201 S-FSU Principles of Accounting I..... 3 hrs.**

This course covers fundamental accounting theory and procedures: organization of accounts, the accounting cycle, working papers and the preparation of financial and operating statements for proprietorships.

**BSBA 2202 S-FSU Principles of Accounting II..... 3 hrs.**

The second semester of this course is a further study of the accounting process as applied to various business organizations. The two semesters of this course are designed to give students an adequate understanding of the recording, classifying and summarizing of business transactions in order to proceed with the interpretation and analysis of accounting data. This is a basic course for accounting majors, majors in other areas of business administration, and those whose major interest is in economics, political science, law or other professional areas. PR: BSBA 2201.

**BSBA 2204 S-FSU Principles of Marketing ..... 3 hrs.**

A study of those business activities that direct the flow of goods and services from producers to consumers.

**BSBA 2209 S-FSU Principles of Management..... 3 hrs.**

The emphasis in this course is on the modern approach to the field of management. Theoretical and practical approaches are presented, along with analytical techniques that are applicable in the various management and production areas.

**~ BSBA 2211 S-FSU Principles of Macroeconomics ... 3 hrs.**

This course approaches the subject from the point of view of macroeconomics, studying the nature and method of economics and describing how the capitalist system functions. Further study is made of the business cycles, fiscal policy, monetary policy, gross national product, and similar concepts. Some time is devoted to the study of competing economic systems.

**BSBA 2212 S-FSU Principles of Microeconomics .... 3 hrs.**

This course is devoted to microeconomics. It follows the analysis of the firm and the decisions made by the managers of the firm, and includes the analysis of demand and supply and price and output determination. It is also concerned with the important problems in the field of economics: monopoly, agriculture, international trade, labor, economic development and similar issues. PR: BSBA 2211

**BSBA 2221 S-FSU Introduction to Financial Management..... 3 hrs.**

This course is intended to give the student a background in the field of financial management, with emphasis on cost of capital, cost of external capital, cost of retained earnings, and similar concepts. It will also cover material investment decisions and financial decisions. PR: BSBA 2211.

**BSBA 3306 Business Law I ..... 3 hrs.**

A study of the nature and function of our legal system, courts, and procedures as they relate to business, including the law of contracts and sales.

**BSBA 3307 Business Law II ..... 3 hrs.**

Continuation of BUSN 3306. Substantive investigation of the law regarding corporations, commercial paper, agency, partnership and the legal basis of property as applied to business situations. Business 3307 will not satisfy the 3-hour requirement in the teaching fields in Business Education. PR: BSBA 3306.

**BSBA 3310 Business and Economic Statistics ..... 3 hrs.**

The course provides students with an introductory survey of business statistics. It covers three main units: descriptive statistics and data analysis, foundations of inference and inferential statistics. PR: MATH 1100 or higher.

**BSBA 3320 International Business..... 3 hrs.**

This is an introductory course, designed to expose students to the nature of international business and the cultural, social, political,

economic and technological forces that make up its environment. Students will study the importance of international trade and organizations, as well as the international monetary system and its impact on businesses, current international business developments, projected long-term global trends, unique opportunities, problems, ethical issues, characteristics and demands facing entrepreneurs and business personnel engaged in international business. PR: BSBA 2209, BSBA 2204, BSBA 2211.

**BSBA 3322 Managing Business in Europe ..... 3 hrs.**

This course is designed to focus on European markets. It will discuss issues that American firms have to deal with while doing business in Europe. With the European Union slated for expansion, enlarging an already large unified market, the European markets offer tremendous opportunities and challenges for businesses. The course will discuss the salient differences between the European and domestic management practices. To study the nature of the European markets first hand, students will go on a trip to Europe during the semester. PR: With Instructor Approval

**BSBA 3325 Women and Work ..... 3 hrs.**

This course will analyze the social organization of women's work in the United States today and in the past. Students will examine the relationship between women's socialization, sense of self, family roles and the social, economic, and political forces which shape women's work. Topics will include affirmative action and comparable work, unionization, sexual harassment and traditional and nontraditional roles. PR: ENGL 1102, COMM 2201, COMM 2202 or COMM 2200.

**BSBA 3350 Managerial Economics ..... 3 hrs.**

This course applies economic theories and tools of analysis to decision making within the firm or organization. The topics studied include decision making and risk, estimation of product demand, analysis of production costs, and price determination. PR: BSBA 2211 and BSBA 2212

**BSBA 3399 Special Topics in Business..... 1-6 hrs.**

Advanced studies in special selected topics, to be determined by the instructor and approved by the School Dean. Credits earned will be applicable as free electives in degree programs. PR: Instructor approval required.

**BSBA 4408 Business and Economics Field Studies ..... 3 hrs.**

This field experience, designed for business majors, actively engages students in a monitored work experience related to their major. Students may work independently or in teams, with guidance from a supervising faculty member on a specific project that benefits both the student(s) and the participating business. PR: Instructor approval required, with approval of the School Dean.

**BSBA 4415 Strategic Management and Policy ..... 3 hrs.**

This course allows the student to integrate the concepts and principles offered in the various disciplines of study within the School of Business. Through the process of case analysis, students will enhance their analytic and problem-solving skills by formulating the policies and strategies that are used in modern business organizations. PR: BSBA 3310 and BSBA 3320, BISM 3200 and senior standing.

**BSBA 4420 Business Ethics and Corporate Accountability ..... 3 hrs.**

The course will explore business ethics emphasizing a responsible decision-making approach in personal and professional contexts to best prepare students for ethical challenges and issues of contemporary corporate accountability. Topics to be addressed include: personal integrity; philosophical ethics; corporate culture and social responsibility; governance and conflicts of interest; workplace, marketing and employment ethics; sustainability and environmental responsibilities. PR: BSBA 3320 and/or BISM 3200 and senior standing.

**BSBA 4440 Hospitality Management Internship ..... 3 hrs.**

This internship course is designed as a learning experience which integrates food service and business theory with actual job experience in a hospitality management-related work environment. The student

must be enrolled in the four-year Hospitality Management program. The employer is responsible for evaluating and reporting the development of the student. PR: Instructor approval required, with approval of School Dean. Graded Credit/No Credit.

**BSBA 4450 Business Internship.....3-6 hrs.**

This business internship is designed to provide the business major with supervised work experience in a sponsoring organization. The student is expected to complete a minimum of 200 hours in a meaningful and challenging position. PR: Instructor approval required, with approval of School Dean. Graded Credit/No Credit.

**BSBA 4998 Undergraduate Research.....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## CHEMISTRY

~ CHEM 1101 S-FSU General Chemistry..... 4 hrs.

A study of the theoretical concepts needed to understand typical chemical phenomena. The course addresses the nature of science, matter and measurements, the stoichiometry of chemical reactions, solutions and the calculation of concentration, energy relationships in chemistry, modern atomic theory, chemical bonding and molecular structure and the classification of reactions. 3 lectures and one 3-hour laboratory per week. PR: ACT math score of 19; or SAT Math score of 460 or Compass Algebra score of 36; or MATH 1106, MATH 1107, MATH 1112.

~ CHEM 1102 S-FSU General Chemistry II..... 4 hrs.

This course is an extension of CHEM 1101. It covers acid-base theory, chemical equilibrium, oxidation-reduction and an introduction to organic chemistry which includes the various classes of organic compounds, their nomenclature, structure, properties and reactions. The synthesis of polymers and their uses are included. The course consists of 3 hours of lecture and one 3-hour laboratory per week. PR: CHEM 1101. Spring semester only.

**CHEM 1105 S-FSU Chemical Principles ..... 5 hrs.**

This course constitutes an introduction to modern chemistry and its applications to society, including structure, nomenclature, properties and simple reactivity of inorganic chemicals, spectroscopy, stoichiometry involving solids, gases and solutions, chemical equilibrium, introductory kinetics and thermodynamics, electrochemistry and nuclear chemistry. CHEM 1105 and CHEM 2200 satisfy the first-year chemistry requirements for science majors and students pursuing pre-professional studies (e.g., pre-medical, pre-dental, pre-pharmacy, etc.). 4 hours of lecture and one 3-hour laboratory per week. PR: ACT math score of 20; SAT Math 480, Compass score of 42 or CHEM 1101 with a grade of C or better. Fall semester only.

**CHEM 1199 Special Topics in Chemistry ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chair. Credits earned will be applicable as free electives in degree and certificate programs.

**CHEM 2200 Foundational Biochemistry..... 4 hrs.**

An introduction to biochemistry with emphasis on the role of basic general chemistry principles, including molecular structure and intermolecular forces, periodic properties, acid-base chemistry, diffusion and osmosis, kinetics and energetics, structural models and visualization. Introduces biochemical reaction mechanisms, cell components and their functions, and a chemical view of proteins, lipids, and cell membranes. CHEM 1105 and CHEM 2200 satisfy the

first-year chemistry requirements for science majors and students pursuing pre-professional studies (e.g., pre-medical, pre-dental, pre-pharmacy, etc.). 3 hours of lecture and one 3-hour laboratory per week. PR: CHEM 1105. Spring only.

**CHEM 2201 Organic Chemistry I..... 4 hrs.**

This course presents an overview of the properties and reactivity of all major classes of organic compounds and functional groups. Selected reactions and mechanisms, particularly those with a biochemical connection, are also discussed. 3 hours of lecture and one 3-hour laboratory per week. PR: CHEM 2200. Fall semester only.

**CHEM 2202 Organic Chemistry II..... 4 hrs.**

This course builds on the foundation from CHEM 2201 to provide a systematic study of the structure and reactivity of all major classes of organic compounds and functional groups with an emphasis on synthesis, mechanisms and structural relationships. 3 hours of lecture and one 3-hour laboratory per week. PR: CHEM 2201. Spring Semester only.

**CHEM 2205 Analytical Chemistry ..... 4 hrs.**

Classical methods of chemical analysis, with an emphasis on quantitative techniques and statistical analysis. Topics include error propagation, median, mean and standard deviation, t-test, q-test, hypothesis testing, linear regression analysis, creation of appropriate graphs and use of calibration curves, equilibrium, precipitation, acid-base theory, acid-base and redox titrations, activities, electrochemistry and potentiometry. 3 hours of lecture and one 3-hour laboratory per week. PR: CHEM 1105. Spring semester only.

**CHEM 3301 Physical Chemistry I..... 4 hrs.**

*Writing Intensive*

A systematic treatment of chemical kinetics and thermodynamics, based on calculus and physics. The application of partial differentiation and mathematical software to chemical problems is specifically addressed. This course serves as an introduction to writing in the discipline, particularly in the laboratory component. 3 hours of lecture and one 3-hour laboratory per week. PR: CHEM 2200, ENGL 1102, MATH 1185 or 1190, PHYS 1101 or 1105. Fall semester only.

**CHEM 3304 Inorganic Chemistry ..... 4 hrs**

This course covers the synthesis, reactions, and properties of elements and inorganic compounds. Topics include atomic and molecular structure; ionic bonding, crystals, and intermolecular forces; redox chemistry; acids, bases, and nonaqueous solvents; the main group elements; the transition metals; structure, bonding, synthesis and reactions of coordination compounds. 3 hours of lecture and one 3-hour laboratory per week. PR: CHEM 2200. Fall semester only.

**CHEM 3315 Instrumental Analysis..... 4 hrs.**

Basic concepts of instrument design and construction, operation of chemical instrumentation, use of standard procedures of analysis (including forensic and environmental methods), and method development for specific analyses. Spectroscopic and chromatographic methods of analysis are emphasized. The course consists of two hours of lecture and one four-hour laboratory per week. PR: CHEM 2200, 2205, PHYS 1102 or 1106. Fall semester only.

**CHEM 4401 Independent Study..... 1-3 hrs.**

Students elect to learn about a topic in greater depth than usual, or one not covered in the regular curriculum, under the supervision of a faculty member. PR: Instructor approval required.

**CHEM 4402 Internship..... 1-3 hrs.**

Students undertake a practical work experience with oversight from the chemistry department. At least two hours' work experience is expected for every credit. A paper describing the experience is required. PR: Instructor approval required.

**CHEM 4403 Independent Research ..... 1-3 hrs.**

Independent research under the direction of a faculty member. Course is repeatable up to three times. At least two hours in the laboratory are expected for every credit. A paper describing the research is required. PR: Instructor approval required.

**CHEM 4404 Synthetic Methods and Materials ..... 4 hrs.**

This laboratory-intensive course is a study of synthetic methods and materials used in organic and inorganic chemistry, including green approaches to synthesis. Topics include organometallic compounds, metal catalysis, inert gas techniques, characterization techniques including electrochemistry, and the synthetic chemical literature. 2 hours of lecture and one 4-hour laboratory per week. PR: CHEM 2202, CHEM 3304. Fall semester only, even years.

**CHEM 4412 Physical Chemistry II ..... 4 hrs.**

This heavily web-supported course deals with the development of quantum chemistry and its applications to spectroscopy. Elements of linear algebra, differential equations and mathematical software will be applied to chemical problems. 3 hours of lecture and one 3-hour laboratory per week. PR: CHEM 3301, MATH 1186 or 3315, PHYS 1102 or 1106. Spring semester, even years only.

**CHEM 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**CIVIL ENGINEERING TECHNOLOGY****CIVL 1100 – Introduction to Civil Engineering Technology 1 hr.**

This course is designed to expose the students to the broad field of Civil Engineering Technology and the various options at their disposal during their academic tenure, and after graduation. It will explore the many design tools required, and writing techniques necessary to foster academic success, and provides an introduction to professional societies, internships, and their role as professionals in the work force. It is highly recommended students take this course freshman year. PR: None. CR: CIVL 2210.

**CIVL 1199 Special Topics in Civil Engineering Technology ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**CIVL 2200 Introduction to Surveying..... 3 hrs.**

Topics in this course include theory of linear distance measurement, proper note keeping, transit/tape surveying techniques, leveling procedures, measurement of horizontal and vertical angles, stadia, bearings and azimuths, rectangular coordinates, topography and mapping techniques. Students will learn to use all types of surveying equipment, including levels, transits, theodolites, total stations, and Electronic Distance Measurements (EDM) devices. CR: MATH 1101.

**CIVL 2210 Light Construction..... 4 hrs.**

Students will be instructed in practices utilized in the erection of residential and industrial buildings, with technical information involving problems from ground to roof.

**CIVL 2220 Construction Materials and Methods ..... 4 hrs.**

Identification, properties and standard test methods for steel, concrete, timber, masonry products, bituminous products, soils and aggregate. Heavy construction methods are also discussed. PR: CIVL 2210, MATH 1101.

**CIVL 2230 Construction Estimating ..... 3 hrs.**

This course covers construction cost-estimating techniques for various types of construction projects. Included are certain related topics such as production, bidding and specifications as they affect the contractor during the cost estimation process. PR: CIVL 2220.

**CIVL 2240 Construction, Land and Route Surveying .3 hrs.**

This course will cover horizontal and vertical control, building location and layout, pipeline layout, construction staking procedures, earth quantity measurements, triangulation, horizontal and vertical curves, plan and profile, area and cross sections, volume calculations, mass diagrams, boundary control and deed descriptions. PR: CIVL 2200.

**CIVL 2275 Civil Engineering Graphics..... 3 hrs.**

This course will provide students with an introduction to computer-assisted civil engineering drafting and design. Includes coverage of graphics techniques, drawing organization, dimensioning, orthographic projection, and specific applications of civil engineering drafting and design. Typical applications include coordinate geometry, contours, topics in highway design, concrete, steel and structural wood drafting. PR: DRFT 2200.

**CIVL 2280 Environmental Engineering Technology I ..... 3 hrs.**

This introductory course will provide an overview of the environmental field, including laws and regulations, water quality, hydraulic and hydrologic fundamentals, water and wastewater treatment, groundwater contamination, and solid waste management. PR: CHEM 1101. CR: TECH 2290 or MATH 1185, or MATH 1190.

**CIVL 2290 Introduction to Structures ..... 3 hrs.**

This is an introductory course focusing on the analysis and design of structures. It will provide an elementary overview of the analysis, design, and detailing of both steel and wood structures, with primary emphasis on steel. Course coverage will include design of beams, columns and connections. PR: MECH 2200.

**CIVL 3305 Hydraulics and Hydrology..... 3 hrs.**

Topics in hydraulics will include closed conduit flow, networks, reservoirs, hydraulic machinery, pumps in series and parallel and hydraulic structures. Topics in hydrology will include statistics and probability, hydrologic cycle and data, open channel flow, flood control and discharge, and culvert and detention pond design. PR: TECH 2290 or MATH Equivalent, and CIVL 2280.

**CIVL 3340 Introduction to Soil Mechanics..... 4 hrs.**

This course covers soil origin and composition, index properties and classification, permeability, capillary, seepage, drainage, frost heave, combined stresses, total and effective stresses, compressibility and consolidation. PR: MECH 2200.

**CIVL 4400 Highway Design and Transportation ..... 4 hrs. (Writing Intensive)**

This course addresses basic transportation theory and design, traffic flow, capacity analysis, level of service, flexible and rigid pavement design, and geometric design. A Writing Intensive capstone experience is included in this course, aligned with the general transportation planning model, which includes industry collaboration. PR: CIVL 3340, ENGL 1102, TECH 2290 or MATH Equivalent. Baccalaureate majors only.

**CIVL 4410 Advanced Structural Analysis ..... 3 hrs.**

This course provides an analysis of structures including cables, beams, columns, trusses and frames. Also included are buckling, shear, moment and deflection in statically determinate structures. PR: CIVL 2290, TECH 3300 or MATH 1186 or MATH 3315. Baccalaureate majors only.

**CIVL 4420 Construction Planning and Administration ..... 3 hrs.**

Introduction to construction management. Topics include construction planning and scheduling, economics, contracts, administration, health and safety, productivity and performance. PR: CIVL 2230.

**CIVL 4440 Structural Design..... 3 hrs.**

A continuation of CIVL 2290, with more in-depth design of reinforced concrete and steel structures. PR: CIVL 2290.

**CIVL 4450 Structures..... 3 hrs.**

Introduction to the structural design of typical building components using steel, timber and concrete. The course will include design of laterally supported and unsupported beams, one and two-way slabs, columns, beam-columns, tension members, connections and wall and column footings. PR: CIVL 2220, MECH 2200.

**CIVL 4460 Environmental Engineering Technology II ..... 3 hrs.**

This course will cover theories and practices in water and wastewater treatment systems, including physical, chemical and biological treatment processes. Other topics include surface water quality characteristics, modeling and permitting. PR: CIVL 2280 and TECH 3300 or MATH 1186 or MATH 3315. Baccalaureate majors only.

**CIVL 4470 Advanced Soil Mechanics and Foundation Design..... 3 hrs.**

This course is a continuation of CIVL 3340 and includes shear strength, laboratory and field test methods and their use in design. It also provides an introduction to shallow and deep foundations, including bearing capacity and settlement analysis, the study of earth pressure for use in design of retaining walls, sheet piles, and excavating bracing, and an introduction to earth structure design and slope stability analysis. PR: CIVL 3340. Baccalaureate majors only.

**CIVL 4998 Undergraduate Research .....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## COMMUNICATION

**COMM 1105 Voice & Diction..... 3 hrs.**

This course covers the theory and practice of speech science, provides the basic information necessary for further speech and drama study and helps students improve their speaking skills. Open to communication and theatre arts and music students only. Fall semester only.

**COMM 1199 Special Topics in Communication ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the School's Dean. Credits earned will be applicable as free electives in degree and certificate programs. Maximum credit allowed is 3 hours per semester, up to 12 hours total.

**~ COMM 2200 Introduction to Human Communication..... 3 hrs.**

Examines the theoretical foundations of human communication through definitional analysis and examination of communication models, code elements and ethical considerations pertinent to communication in our society. This course provides the opportunity for each student to participate in interpersonal and public speaking presentations to develop his/her skills in interacting with others in both the personal and professional arenas. PR: Completion of ENGL 1101 with a "C" or better or a Verbal ACT score of 21 or higher. Satisfies General Studies category ID, IG, and IV requirement.

**COMM 2201 Introduction to Group Discussion..... 3 hrs.**

This course focuses on the theories, concepts and skills necessary to function effectively in a variety of group settings. Students will use research, organization, critical thinking and presentational skills when participating in groups to investigate social problems and create potential solutions for those problems. Topics include

group norms, rules, roles, conflict management, leadership, problem solving, decision-making and team building. PR: Completion of ENGL 1101 with a "C" or better grade or a Verbal ACT score of 21 or higher. Satisfies General Studies category ID, IG, and IV requirement.

**COMM 2202 Introduction to Communication in the World of Work..... 3 hrs.**

This course focuses on personal and professional communication. It examines the nature of communication in the world of work. Students will exam and practice individual, group and presentational communication skills necessary to work effectively with peers, supervisors, supervisees and constituents. Topics addressed will include interpersonal communication, socialization, organizational culture, group dynamics, leadership, power and status, meeting facilitation, problem solving, presentation research, organization and delivery. PR: Completion of ENGL 1101 with a "C" or better or a Verbal ACT score of 21 or higher. Satisfies General Studies category IG and IV requirement.

**COMM 2213 Introduction to Communication Theory and Research Practices ..... 3 hrs.***Writing Intensive*

This course provides an overview of the concepts and methods used to design, conduct, interpret and evaluate communication research. The aim of the course is for students to become informed consumers of research as well as producers of it on a basic level. The course will develop the skills necessary to design, organize, conduct, report and present research competently and ethically. In order to satisfy the Writing Intensive requirement, students will be required to complete a comprehensive written literature review analyzing the work of other researchers on a chosen topic related to communication theory. PR: ENGL 1102.

**COMM 2219 Language in Communication ..... 3 hrs.**

A study of verbal coding for communication, this course focuses on the function of language in oral communication, theories of oral language acquisition and behavior and the special problems involved in oral language coding for audiences. PR: COMM 2200, 2201, or 2202. Spring semester only.

**COMM 2241 Argumentation & Debate..... 3 hrs.**

A study of the principles of argumentation, logic and reasoning, evidence and decision-making. A practical application of these principles is emphasized through the study of current controversies and oral class debates. PR: COMM 2200, 2201, or 2202. Fall semester only.

**COMM 2249 Intercollegiate Debate I-IV ..... 1-4 hrs.**

This course provides training for and participation in intercollegiate debate tournaments at colleges and universities throughout the eastern United States. Credit is also given for researching the intercollegiate debate proposition for the current academic year. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to freshmen and sophomores. (Juniors and seniors, see COMM 4449.) PR: COMM 2241.

**COMM 2250 SOPHOMORE SEMINAR..... 1 hr.**

In this course, students will explore the role of the communication professional in a variety of fields such as media, non-profit, government, business, and health. Students will participate in a mid-program review with communication faculty and the class will culminate in a paper/presentation on a communication profession or field of study. Open to communication arts majors and minors only.

**COMM 3300 Intercultural Communication ..... 3 hrs.**

This course examines the meaning, significance and impact of intercultural communication as it applies individually, nationally and globally as well as in groups and organizations. The course will explore the meaning of "culture" and its effects on perception and understanding. Both macro and micro cultural differences will be examined and the danger of cultural misunderstanding will be explored. The course will also examine the ever growing need for intercultural communication competence and introduce ways to increase that competence. PR: COMM 2200, 2201, or 2202.

**COMM 3320 The Art of Storytelling in Theory and Practice ..... 3 hrs.**

The emphasis of the course will be on both the theory and research related to storytelling and the art of storytelling as performance. In this performance-based course, students will select, craft, rehearse and perform stories suitable to a variety of audiences. Students enrolled in this course are required to attend the National Storytelling Festival in Jonesborough, Tennessee. Also listed as FOLK 3320 and THEA 3320. Fall semester, odd-numbered years.

**COMM 3337 Persuasive Communication ..... 3 hrs.**

This course is an in-depth study of the speaker, audience and environmental factors influencing the persuasive process. It is designed to give advanced communication students training in the preparation, presentation and critical analysis of persuasive speeches. Various delivery styles, including impromptu and extemporaneous, will be used. PR: COMM 2241. Fall semester only.

**COMM 3345 Oratory ..... 3 hrs.**

Students will study the role of rhetoric/public discourse as an agent of change in a free society, and prepare a persuasive manuscript to be delivered to a public audience. This class prepares students for participation in the M. M. Neely Persuasive Speaking Contest. PR: COMM 3337. Spring semester only.

**COMM 4420 Contemporary Storytelling ..... 3 hrs.**

This course is an introduction to the study of images as a communicative phenomenon and ethnographic storytelling. Students will explore the use of digital images to communicate specific information in a variety of contexts such as public relations, journalism, or web-based publication and the use of ethnographic research as a tool for audio documentary. PR: COMM 2241 and BISM 2800.

**COMM 4431 Methods and Materials in Teaching Communication and Theatre..... 3 hrs.**

This course covers the philosophy, methods, and materials of teaching forensic communication and theatre, as well as directing the forensic and theatre co-curricular and extra-curricular activities in the secondary schools. Fulfills Professional Block requirement for those with a single teaching field in Oral Communication or Theatre Education. Fall semester only.

**COMM 4439 Public Speaking Practicum I-VIII ..... 1-8 hrs.**

Preparation for and participation in public performances and intercollegiate competitions and festivals in public speaking, i.e., after-dinner, extemporaneous, oratory, etc. Maximum credit allowed is 1 hour per semester, up to 8 hours total. PR: COMM 2241.

**COMM 4449 Intercollegiate Debate I-IV ..... 1-4 hrs.**

This course provides training for and participation in intercollegiate debate tournaments at colleges and universities throughout the eastern United States. Credit is also given for researching the intercollegiate debate proposition for the current academic year. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores, see COMM 2249.) PR: COMM 2241.

**COMM 4491 Directed Study in Communication ..... 1-3 hrs.**

The student may elect directed study in any area of communication which is not treated in the communication course offerings. Coursework is designed by the student and selected faculty, with approval of the School's Dean. Maximum credit allowed is 3 hours per semester, up to 12 hours total. PR: Instructor approval.

**COMM 4496 Communication in Practice : Internship.... 3 hrs.**

The communication internship is designed to provide students with a supervised opportunity to apply their communication skills in a business or organization. Students are expected to complete a minimum of 100 hours in a meaningful and challenging placement. This placement should be made in cooperation with a member of the communication arts faculty or a faculty member teaching in a communication arts track. Students will attend course orientation sessions at the beginning of the semester and course reflection and evaluation sessions at the end of the semester. The final reflection

will include a portfolio presentation that demonstrates students' understanding of communication in theory and practice as well as their own strengths and weaknesses as a communicator. This placement, the reflection, and the portfolio presentation make up the capstone experience for students majoring in communication arts. PR: Open to communication arts majors only.

**COMM 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of the student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Maximum credit allowed is 3 hours per semester, up to 9 hours total. PR: Sophomore standing and above, instructor approval.

## COMPUTER SCIENCE

**COMP 1100 Introduction to Computing ..... 3 hrs.**

This course provides an overview of the current state of computing and its social implications. This is intended to be used as a breadth-first introductory course for majors and non-majors. Topics include organization of a computer system, discussion of a broad range of software systems, problem solving, database systems, networking, computer security, ethical issues, and emerging areas in computer science.

**COMP 1101 Applied Technical Programming ..... 3 hrs.**

This course provides familiarity with hardware and software concepts and an introduction to the Visual BASIC programming language. Several short programming projects are assigned to provide the students with experience in program development. This course may not be substituted for either COMP 1100 or 1102. PR: MATH ACT score of 19 or MATH SAT score of 460 or MATH 1011 or MATH 1101 or MATH 1107.

**COMP 1102 Principles of Programming I ..... 3 hrs.**

A study of the foundations of computer programming. Students are introduced to computer organization, data representation, the software development cycle, and programming concepts including data types, input/output, control structures, functions, and text file processing. Programming projects in C++ are assigned to provide students with experience in program development. PR: MATH ACT score of 21 or MATH SAT score of 500 or Compass score of 49 or MATH 1101.

**COMP 1108 Principles of Programming II ..... 3 hrs.**

This course is a continuation of COMP 1102 and covers arrays, searching/sorting, pointers, classes, recursion, and advanced file I/O. The concept of object oriented programming is introduced. Projects in C++ are assigned to provide students with experience implementing multi-part applications using these concepts. PR: A grade of C or better in COMP 1102.

**COMP 1199 Special Topics in Computer Science..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chair. Credits earned will be applicable as free electives in degree and certificate programs.

**COMP 2200 Object-Oriented Programming ..... 3 hrs.**

This course covers concepts of object-oriented programming using the Java programming language. Topics include objects and classes, encapsulation, inheritance, polymorphism, generic programming, exception handling, graphical user interface, and event-handling. PR: A grade of C or better in COMP 1108.

**COMP 2201 Machine Organization ..... 3 hrs.**

This course provides an overview of computer organization. Topics include assembly language, data representation, subroutine

calling conventions, the OS kernel, interrupt handling, and an introduction to digital logic. Programming projects are assigned to exemplify the topics covered in class. PR: A grade of C or better in COMP 1108.

**COMP 2220 Fundamentals of Computer Security ..... 3 hrs.**

Topics to be covered in this course include access control, hacking, malicious code, intrusion detection, countermeasures, firewalls, network security, cryptography, forensics, ethical issues and other current issues. The course consists of three hours of lecture per week. PR: COMP 1100 or COMP 1102 or BISM 1200

**COMP 2230 Network Programming ..... 3 hrs.**

This course covers the design and implementation of software applications in a networked environment. Topics include a broad overview of network technology, the OSI model, socket programming, multithreading, and web programming. PR: COMP 2200.

**COMP 2270 Data Structures..... 3 hrs.**

This course covers linear and non-linear data structures and their associated algorithms. Topics include analysis of algorithms using Big-O notation, linear data structures (linked lists, stacks, and queues), non-linear data structures (trees and graphs), and hash tables. PR: A grade of C or better in COMP 1108.

**COMP 3300 Computer Graphics ..... 3 hrs.**

This course provides an introduction to interactive graphics programming. Topics include algorithms for generating graphics output primitives, two- and three-dimensional geometric transformations, drawing windframe and solid objects in a three-dimensional scene, line and polygon clipping, and basic animation techniques. PR: COMP 2270 and MATH 2562.

**COMP 3310 Artificial Intelligence..... 3 hrs.**

This course provides an introduction to the fundamental topics in artificial intelligence as well as application of artificial intelligence in real-world problems. Topics include intelligent agents, problem solving using searching, game playing, knowledge representation and reasoning, uncertainty and probabilistic reasoning, and learning. PR: COMP 2270 and MATH 2562.

**COMP 3330 Analysis of Algorithms ..... 3 hrs.**

This course covers complexity of algorithms and algorithm design techniques. Topics include analysis of algorithm correctness, analysis of algorithm efficiency using asymptotic notations, algorithm design techniques including brute-force, divide-and-conquer, greedy, and dynamic programming approaches. PR: COMP 2270 and MATH 2562.

**COMP 3340 Operating Systems ..... 3 hrs.**

This is an introduction to historical and current operating system principles and operation. Topics include the function and operation of the major areas of the operating system such as user interfaces, process control, concurrent processes and synchronization, primary and secondary memory management, file systems, I/O, and security issues. PR: COMP 2201 and COMP 2270.

**COMP 3380 Introduction to Cryptography ..... 3 hrs.**

This course provides an introduction to cryptography. Major topics to be covered include the history of cryptography and single and public key encryption. Students will develop various cryptographic applications implementing or using digital certificates, digital signatures, IPsec, Kerberos, PGP, PKI, Rijndael, secure e-mail, SSL and TLS. PR: COMP 2270 and MATH 2562.

**COMP 3390 Network Security..... 4 hrs.**

This course combines classroom and laboratory work to explore network security attacks and solutions. Commercial-Off-The-Shelf (COTS) network devices such as servers, routers, bridges, switches, hubs, firewalls, scanners and intrusion detection systems will be configured to demonstrate network security solutions for selected real-world scenarios. PR: COMP 2220, COMP 2270, and BISM 2600.

**COMP 3395 Ethical Issues in Computing ..... 3 hrs.**

*Writing Intensive*

This course provides an introduction to various legal and ethical issues in computing. Topics to be covered include privacy rights, intellectual property rights, electronic transactions and liabilities, hacking, computer crime, encryption policies, offensive speech, anonymity, employee monitoring and e-mail policies, censorship, AI/expert systems, codes of ethics (ACM, IEEE, ISC(2) and NSPE) and political freedom. PR: COMP 1100 and ENGL 1102.

**COMP 4400 Automata Theory ..... 3 hrs.**

This course covers the theoretical foundations of computer science and the abstractions of computational processes. Topics include finite automata, regular languages and grammars, context-free languages and grammars, pushdown automata, and Turing machines. PR: COMP 2270 and MATH 2562.

**COMP 4410 Database Management ..... 3 hrs.**

Students will develop familiarity with database terminology and will study database design and implementation. The primary focus will be on the relational model, relational algebra and SQL, and application development. Issues of functional dependencies, normal forms, indexing, and query optimization will also be discussed. PR: COMP 2270 and MATH 2562.

**COMP 4415 Vulnerability Assessment ..... 4 hrs.**

This course provides theoretical and practical instruction for assessing computer vulnerabilities and countermeasures. Topics to be covered include firewalls, hacking, intrusion detection, incident response, penetration testing and security policies. The laboratory portion of the course will provide hands-on experiments connected with various vulnerability assessment and countermeasures topics. The course consists of three hours of lecture and two hours of lab per week. PR: COMP 3390.

**COMP 4420 Selected Advanced Topics ..... 3 hrs.**

This course will address current topics of interest in computer science, to be determined by the instructor and approved by the department chair. PR: Instructor approval required.

**COMP 4421 Computer Science Special Project ..... 3 hrs.**

Each student enrolled in this course will develop an independent project under supervision of the instructor. The project will be a practical application of computer science. The student and instructor will agree on the nature of the project necessary to satisfy the course requirement. PR: Instructor approval required.

**COMP 4440 Software Engineering ..... 4 hrs.**

This course covers the key aspects of software engineering principles and practice. Topics include software life cycle/process models, software requirements, software design, software testing, team management, and project management. This course also provides a capstone experience, integrating the knowledge students have acquired in previous courses, as they work on a team-based software development project. PR: COMP 2200 and COMP 2270.

**COMP 4450 Introduction to Data Mining ..... 3 hrs.**

This course introduces the fundamental topics in data mining, as well as application of data mining in real-world problems. Topics include data preprocessing, classification, clustering, association mining, web mining, etc. PR: COMP 2270 and MATH 2562.

**COMP 4495 Cybersecurity Senior Project ..... 3 hrs.**

This course allows students to obtain real-world cybersecurity work experience through an internal project or through an internship with government or private organization. PR: Instructor approval required.

**COMP 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary

goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. PR: Instructor approval required.

## CRIMINAL JUSTICE

### CRIM 1100 Introduction to Criminal Justice ..... 3 hrs.

This course introduces the student to the three principal components of the criminal justice system: law enforcement, the judiciary and corrections. It will examine the history, structure, functions and issues of each component, and introduce the student to the measurement of crime, criminological theories, criminal law, justice perspectives and the juvenile justice system.

### CRIM 1101 Police Operations ..... 3 hrs.

The student will be introduced to the day-to-day duties of a police officer. Emphasis will be placed on community and human relations, patrol and traffic functions, order maintenance, report writing, investigations, communications, interviewing, search and seizure and arrest. Police stress and survival skills will also be discussed.

### CRIM 2202 Principles of Criminal Law ..... 3 hrs.

Structure, definitions and interpretations of criminal statutes of particular interest. The course will cover the scope, purpose and definition of criminal law in general, including the study of crimes against individuals and property and other offenses.

### CRIM 2206 Introduction to Corrections ..... 3 hrs.

A survey of the current correctional process in America, including the origin and legal procedures of the present system and its effects on the individuals as well as on our society. Special emphasis is given to current theories of rehabilitation in the institution and in probation and parole. Students will also be introduced to the administration of the adult and juvenile institutions and the alternatives to and future of the present system.

### CRIM 2209 Firearms ..... 3 hrs.

This course addresses safety precautions, legal provisions, moral aspects, principles of decision shooting and restrictions in the use of firearms. Nomenclature and the firing process of the sidearm and shotgun will be demonstrated. PR: CRIM 1100.

### CRIM 2212 Deviant Behavior ..... 3 hrs.

A study of the recognition and handling of abnormal persons with emphasis on those mental conditions most often encountered by the criminal justice practitioner. Methods of crisis intervention, basic conflict management and referral and diversion will also be discussed.

### CRIM 2226 Crime Scene Investigation ..... 3 hrs.

This course will examine all aspects of performing a thorough and methodical crime scene investigation. This course will address a variety of crime scene ranging from crimes of violence to property crime scenes. Various types of physical evidence such as latent prints, trace evidence, biological fluids will be examined. The methods and procedures utilized for the collection of evidence will be demonstrated and examined. PR: CRIM 1100.

### CRIM 2236 Criminal Investigation ..... 3 hrs.

This course will survey the fundamental techniques of criminal investigation. Students will be exposed to the history of criminal investigation and criminalistics, interviewing and interrogation, physical evidence, crime scene procedures, crime analysis, investigation techniques, report writing, case preparation and courtroom testimony. PR: CRIM 1100.

### CRIM 2240 Adjudication Process ..... 3 hrs.

Topics include the role and structure of prosecution, public defense, and the courts; basic elements of the substantive criminal law and procedural law and its relation to constitutional guarantees. PR: CRIM 1100.

### CRIM 2246 Criminal Evidence ..... 3 hrs.

This course covers constitutional and procedural considerations affecting arrest, search and seizure, post-conviction treatment; the origin, development, philosophy and constitutional basis of evidence; kinds and degrees of evidence and rules governing admissibility; and judicial decisions interpreting individual rights and case studies. The primary focus is on the case study approach. PR: CRIM 1100.

### CRIM 2250 Cybercrime ..... 3 hrs.

This course is an introductory course in cyber crime and criminal justice. This course will focus on cyber crime perpetrated via computers and/or other electronic means. This course also addresses the legal issues involved in cyber crime investigations.

### CRIM 2295 Ethics in Criminal Justice ..... 3 hrs.

This course introduces the student to ethical decision making. The student will analyze the major ethical perspectives and then incorporate them into the social and criminal justice context as it relates to law, police, courts, and corrections. The course also addresses the future development of ethics in everyday life.

### CRIM 3302 Criminal Justice Spanish ..... 3 hrs.

The need for law enforcement personnel who can communicate in Spanish is ever increasing. The purpose of this course is to introduce and refine skills in Spanish to facilitate communication between criminal justice personnel and Spanish-speaking clients. In this course students learn and practice survival-level words, phrases, questions and commands necessary to effectively communicate with Spanish speakers in law enforcement and corrections settings.

### CRIM 3304 The Female Offender ..... 3 hrs.

Designed to introduce the student to the largest-growing inmate population in the United States. It will introduce the students to the history of women in prison, the profiles of women entering our penal system, and how corrections professionals have responded to the unique needs of women in this male-dominant system. This class also examines the effects on our society of incarcerating females, many of whom are mothers. The course uses a combination of lectures, films, outside readings, and actual visits to facilities housing female inmates. PR: CRIM 2206.

### CRIM 3305 Changing Roles of Women in Criminal Justice ..... 3 hrs.

The course will examine issues concerning women within the contemporary criminal justice system. Students will explore theories and current research of the historical role of women as practitioners, offenders and victims.

### CRIM 3306 Scientific Basics of Fingerprints ..... 3 hrs.

This course will introduce students to the basic fingerprint pattern types and classification formulas: The Henry System and the NCIC classification. Students will receive comparison training, which consists of determining if a current fingerprint submission is Ident with the master fingerprint card, and provide hands-on training in the proper procedures for recording legible fingerprints.

### CRIM 3310 Comparative Criminal Justice ..... 3 hrs.

The objective of this course is to provide materials that will allow students to understand and respect the institutions and procedures of other countries, and to familiarize them with international efforts to control and investigate crime. The study of other countries' criminal justice systems will also provide students with a foundation of knowledge that will lead to an understanding of foreign visitors' and immigrants' world view based on their experiences of criminal justice systems and procedures prior to their arrival in the United States.

### CRIM 3311 Juvenile Justice ..... 3 hrs.

This course addresses definitions of delinquent behavior, contributing social problems, adolescence as a subculture, the philosophy and practice of adjudication process for juveniles and treatment procedures.

**CRIM 3320 Criminology ..... 3 hrs.**

The study of deviant behavior as it relates to the definition of crime. Topics include crime statistics theories of crime causation and crime typologies. PR: CRIM 1100.

**CRIM 3325 Analysis of Security Operations..... 3 hrs.**

This course is designed to foster an advanced understanding of private and public security. A historical and philosophical perspective will help students better understand risk analysis, physical and procedural controls, intelligence gathering and the principles on which private security is founded. Other current security issues will be addressed.

**CRIM 3335 Analysis of Police Operations..... 3 hrs.**

This is a seminar in major police issues. The topics will vary according to the interests of the instructor and students but will focus on current issues in police operations. Topics may include officer selection and promotion processes, academy and field training, corruption and brutality, minorities and women in police work, crime prevention, community relations and community policing. The emphasis will be on determining practical and effective policies and procedures. PR: CRIM 1101.

**CRIM 3340 Criminal Procedure..... 3 hrs.**

This course will deal with constitutional law relating to the police function. Focus will be on the Fourth, Fifth, Sixth and Fourteenth Amendments, which include reasonable suspicion and probable cause, warrant requirements and exceptions, field stops and interviews, interrogations, right to counsel, pretrial identifications, the exclusionary rule and due process. There will be detailed discussion on the reasons for constitutional protections to engender an understanding of and respect for the rights of all people involved in the criminal justice process. PR: CRIM 1100, 1101.

**CRIM 3355 Analysis of Correctional Operations ..... 3 hrs.**

Topics include problems of management in the correctional process; programming, security, information systems, reports, case management and evaluation progress; custody and discipline as they relate to rehabilitative efforts; community adjustment facilities; and problems of probation and parole. PR: CRIM 2206.

**CRIM 3360 Community-Based Corrections ..... 3 hrs.**

This course is designed to instruct the student in the study of diversion, pretrial release programs, probation, restitution, community service programs, temporary release programs, halfway houses and parole. Emphasis will be placed upon the special problems and needs of females, juveniles and drug-and-alcohol-abusing offenders. The preparation of the pre-sentence investigation report will also be covered. PR: CRIM 2206.

**CRIM 3365 Licit and Illicit Drugs..... 3 hrs.**

This course is designed to instruct the student in the understanding of street drugs and their effects on the individual. The course will also examine specialized techniques in drug investigation and the legislation that applies directly to the defenses. PR: CRIM 1100.

**CRIM 3370 Economic Crime..... 3 hrs.**

The course content will provide students with an overview of economic/white-collar crime in America. Students will examine definitional problems, difficulties in establishing the scope and extent of economic crime, theories of causation, law enforcement effectiveness, efforts of technology, and a number of related topics.

**CRIM 3375 Victimology..... 3 hrs.**

This course will introduce students to the issues and legislation regarding victims of crime. Topics include theories of victimology, victim-witness compensation and future directions in identifying and treating victims.

**CRIM 3380 Mock Trial ..... 3 hrs.**

This course is designed to teach students of the American trial process through a participatory study of trial practice in the United States. Students will learn legal ethics and courtroom decorum, substantive law, trial procedures and advocacy skills through

practice sessions and courtroom simulation. The development of speaking and critical thinking skills will be a focus of the course. The culminating event for the class will be the trial of a hypothetical case in a courtroom.

**CRIM 3385 Racial Profiling ..... 3hrs.**

In this class students will examine race and bias-based profiling. This course will cover various aspects of such prejudices, and how officers can operate effectively without being influenced by local prejudices. This course will examine state and federal laws that prohibit racial profiling. In addition, the negative impact of race and bias-based profiling on the community and the police will be examined.

**CRIM 3390 Forensic Psychology ..... 3 hrs.**

This upper level elective course will introduce students to the interactions between psychology and the law. The course will include coverage of criminal thinking patterns, current and historical issues in adult and adolescent mental health and the law, and relevant case law and legal standards.

**CRIM 3399 Special Issues in Criminal Justice .....3-12 hrs.**

Forum for special course offerings, focusing upon special issues in criminal justice, by visiting instructors or regular faculty. (3 credit hours, repeatable up to 12 hours.)

**CRIM 4401 Independent Study..... 1-12 hrs.**

Students involved in this course will conduct surveys and applied research projects as approved and supervised by a Criminal Justice faculty member. Junior or Senior status. (1 credit hour, repeatable up to 12 hours.)

**CRIM 4405 Terrorism ..... 3 hrs.**

A course designed to promote understanding of the problem of terrorism and political violence. The course will define terrorism; examine its origins, characteristics, nature and trends; analyze in detail various terrorist organizations and address selected problems in the response to terrorism. (Credit in Criminal Justice or Political Science)

**CRIM 4411 Internship.....3-12 hrs.**

A supervised professional study conducted in the criminal justice field setting. Junior or Senior status and a 2.5 GPA. (3 credit hours, repeatable up to 12 credit hours.)

**CRIM 4412 Research in the Social Sciences..... 3 hrs.***Writing Intensive*

Students will explore the interaction of theory, research, and practice; the purposes and limits of research; introduction to research design, data collection, analytic techniques, data processing resources and preparation of research reports. PR: ENGL 1102. Junior or Senior status.

**CRIM 4415 Community Policing..... 3 hrs.**

This course provides a detailed analysis of community policing, which is the dominant philosophy for providing police services in the twenty-first century. Topics include the history of community policing, definitions of "community," current strategies for the implementation of this philosophy and the impact community policing will have on crime, disorder and fear. Also included in the course will be a thorough description of the new role of a police officer as a Community Policing Officer and the requirements for success. PR: CRIM 1101. Junior or Senior status.

**CRIM 4420 Legal Research..... 3 hrs.**

This course is designed to introduce students to the process of legal research, and to aid the student in attaining proficiency in finding, interpreting according to established legal principles, and applying the law to a given set of facts and circumstances. The goals of the course will be achieved through successful completion of a series of research projects and assessments of fundamental knowledge. Junior or Senior Status.

**CRIM 4425 Evaluation of the Criminal Justice System ..... 3 hrs.***Writing Intensive*

This is the capstone seminar in criminal justice, with a focus on policy analysis. Students in this course will examine controversial criminal justice issues. Topics of study will vary according to the interests of the instructor and students, but may include capital punishment, gun control, drug policy, crime myths, racism and discrimination in the justice process, white collar crime and corruption. Students will be required to write a major research paper. PR: ENGL 1102, CRIM 1100, 2206. Junior or Senior status.

**CRIM 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**DRAFTING****DRFT 1100 S-C&TC Engineering Graphics..... 3 hrs.**

This introductory course covers basic drawing processes and techniques, including freehand lettering, geometric construction, sketching, multi-view and pictorial drawing, dimensioning and sheet layout. Tools, drawing surfaces, computer graphics, and projection theory will be stressed throughout the course.

**DRFT 1189 Guided Experience I ..... VAR 1-4 hrs.**

This course will be a guided experience for community college students to explore topics of interest in their field through research, field experience, presentation, computer applications, lab experience, or other project agreed upon between the student and the supervising faculty and is submitted to the dean in a written contract. Credits earned may be applied as free electives in degree or certificate programs. May be repeated for up to 4 hours. Instructor approval required.

**DRFT 1199 Special Topics in Drafting ..... 1-12 hrs.**

Special topics will be studied, to be determined by the instructor and approved by the school's dean. Credits earned will be applicable as free electives in degree and certificate programs.

**DRFT 2200 S-C&TC Fundamentals of CAD ..... 3 hrs.**

This is an introductory Computer Aided Drafting (CAD) course. Software to be covered will be Windows and the use of AutoCAD. The student will learn on a PC workstation and become familiar with plotters and printers.

**DRFT 2205 Introduction to Solid Modeling..... 3 hrs.**

An introduction to conveying information as to the shape, size, and formation of a three-dimensional object. Topics include technical sketches, drawings and illustrations for parts catalogues. Content areas include isometrics, perspectives, three-dimensional wire frames and solid models. Three-dimensional rendering will also be explored. PR: DRFT 2200.

**DRFT 2215 Architectural Drafting..... 4 hrs.**

A comprehensive study of the planning, design and drawing of a single-family residence. Primary considerations include the site, styling, codes, zones and basic construction techniques. Modern house planning results in a complete set of plans and specifications. PR: DRFT 2200.

**DRFT 2225 Descriptive Geometry..... 3 hrs.**

A study of the science of graphic representation and solution of space problems involving points, lines, intersections, parallelism, perpendicularity, revolution, vectors, developments, shades and shadows, conics, and spherical triangles.

**DRFT 2235 S-C&TC Technical Drafting ..... 3 hrs.**

This course covers advanced drafting and design techniques by using a computer graphics workstation. The course content will include industrial detail drawing, electrical/electronic drawing, topographic mapping, pipeline drawing and production/working drawings. PR: DRFT 2200.

**DRFT 2245 Architectural Design ..... 3 hrs.**

As approach to the development of residential design problems. Sketching, interior perspective and rendered perspective will be covered to prepare interior design majors. Content covers: architectural, pictorial and presentation drawings. PR: DRFT 2200.

**DRFT 2289 Guided Experience II ..... VAR 1-4 hrs.**

This course will be an advanced guided experience for community college students to explore topics of interest in their field through research, field experience, presentation, computer applications, lab experience, or other project agreed upon between the student and the supervising faculty and is submitted to the dean in a written contract. Credits earned may be applied as free electives in degree or certificate programs. May be repeated for up to 4 hours. Instructor approval required.

**DRFT 2299 Special Topics..... 1-12 hrs.**

This course will provide an opportunity for students to further their study of principles and concepts in the field and to apply their knowledge in a variety of applications both in the traditional classroom setting and in work/job related experiences. The class will be an individualized, arranged course, with learning outcomes determined by the instructor in consultation with the student and permission of the school's dean.

**DRFT 2995 Tool Design ..... 4 hrs.**

This course covers the design of tooling, including jigs and fixtures for machine operations such as drilling, reaming, tapping, milling and turning. Study will include modern tooling techniques, the use of computer graphics, tooling economics and development of jigs and fixtures that meet ANSI standards. PR: DRFT 2200. Capstone course.

**ECONOMICS****ECON 4406 Guided Economic Study ..... 1-3 hrs.**

Intensive reading, research, and study in current literature and documents in regard to a selected economic problem or group of problems. The field of study will be one in which the student has a special interest. All work will be done individually and the class will be conducted by conferences with each student. PR: Instructor approval required.

**ECON 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## EDUCATION

### EDUC 1105 S-C&TC Basic Skills for Instructional Support ..... 3 hrs.

This course will cover learning strategies and study skills for the paraprofessional, including strategies for remembering information, reading and taking notes, interpreting graphic aids, improving time management, preparing for and taking tests and finding and using information. In addition, math strategies and learning problems in mathematics, plus reading skills, phonics, sight words, and reading comprehension will be covered.

### EDUC 1199 S-FSU Special Topics in Education... 1-12 hrs.

The topic to be studied will be determined by the instructor and approved by the Dean of Teacher Education. Credits earned will be applicable as free electives in degree and certificate programs.

### EDUC 2200 S-FSU Introduction to Education ..... 3 hrs.

This course provides the teacher candidate with an overview of the profession. Its primary purpose is to offer information necessary for an informed career decision and a professional commitment to teaching. It also includes an analysis of the historical, philosophical and sociological basis for programs, instructional strategies and teaching behaviors in American education.

### EDUC 2201 S-FSU Instructional Technology ..... 3 hrs.

Designed to introduce teacher candidates (Pre K-adult) to computer technology and its applications to the classroom and curriculum. The major focus of the course will be interactive technology via the computer, although other forms of technology will be explored. Special emphasis will be placed on customizing instruction to meet learning styles of a diverse student population and evaluation of current software applications.

### EDUC 2203 S-FSU Human Development, Learning & Teaching ..... 3 hrs.

This course is an analysis of human development from birth through adolescence. Students will examine the influence of heredity and environment on the development of personality and behavior and their implications for educators. Admission to Teacher Education.

### EDUC 2206 S-C&TC Instructional Support Strategies ..... 3 hrs.

This course will cover legislation affecting special education laws and the learning experience, the difference between mainstreaming and inclusion, the IEP and the self-contained classroom for the paraprofessional. Students will also learn about implementation of effective classroom management. Behavioral support in a positive learning environment and the role of the family, for encouraging and including parental input in an educational plan, will be included.

### EDUC 2220 S-FSU Introduction to Special Education ..... 3hrs.

This course is a guided survey of the areas of exceptionality in the field of Special Education (emotionally/behaviorally disturbed, physically handicapped, speech and language, visually impaired, hearing impaired, mentally impaired, gifted, and learning disabled), and the historical, philosophical, political and sociological foundations related to exceptional children. The laboratory component of the course is designed to provide experience in the areas of exceptionality through observation and limited participation in these areas.

### EDUC 2225 Computer Education ..... 3 hrs.

In this course, students study the history of computers in society and education. The focus of the course is on understanding the theories supporting computer use in schools, the ways computers are used, and the effects of computer-based instruction on student learning. Admission to Teacher Education.

### EDUC 2226 Technology in Instruction ..... 3 hrs.

This course prepares the pre-service teacher to fully plan, implement and evaluate statewide technology plans. Content includes technology standards, resources, and planning; online education and curriculum integration and design. Admission to Teacher Education.

### EDUC 2240 High Incidence Disabilities for Educators ..... 3 hrs.

This course is a survey course designed to provide teacher education majors with an understanding of the areas of exceptionality with an emphasis on the inclusion of students with high incidence disabilities such as mild mental impairments, learning disabilities, ADHD, and behavior disorders in the regular classroom. The historical, philosophical, political and sociological foundations of the education of students with exceptional learning needs will be presented, as well as current best practices and instructional approaches for each of these high incidence categories within the regular classroom. Students will be gain an introductory understanding of the role of the regular educator in the IEP process and co-teaching within the inclusive classroom. Admission to Teacher Education.

### EDUC 2260 Instructional Design I ..... 3 hrs.

This course is designed to integrate the theory and practice of how planning, instruction, assessment, and management are synthesized to address Pre K-Adult student learning. Teacher candidates will be provided opportunities to design instructional materials and activities that address differences in learning styles, socio-economic, cultural, and developmental characteristics. The use of media and information technologies to design and deliver instruction that promotes self-direction, problem solving, and collaboration are emphasized. At the end of this course, teacher candidates will understand and apply the learning theories that underpin their instructional choices and understand the importance of using a variety of assessments for learning and of learning. The content of the course is organized to reflect and reinforce the WV Professional Teaching Standards, which are built on expectations of practice by organizations such as National Board, Charlotte Danielson's Framework for Teaching, CAEP, INTASC, and ISTE standards. PR: Admission to Teacher Education, EDUC 2203 and EDUC 2240, CR: EDUC 22655

### EDUC 2265 Field Experience 2 ..... 1 hr.

This field-based semester long experience must be completed in a Professional Development School / public school setting. This field experience will allow the teacher candidate the opportunity to apply and reflect on his/her content area as well as pedagogical knowledge, skills, and dispositions in a classroom setting with a certified teacher. This experience will allow for immersion in the learning community so the teacher candidate can demonstrate proficiencies in the role for which s/he is preparing which includes: observing, assisting, tutoring, instructing, collecting and using assessment data to inform teaching decisions in the classroom setting. CR: EDUC 2260, PR: EDUC 2203 & EDUC 2240

### EDUC 2995 S-C&TC Behavior Support Strategies ..... 3 hrs.

This course presents basic principles and practices in the use of applied behavior management with both normal and exceptional learners for the paraprofessional. Students will gain firsthand experience in using behavior analysis and other behavioral support strategies in field settings. Capstone course.

### EDUC 3307 Instructional Technology II ..... 3 hrs.

This course prepares the pre-service teacher to utilize school-wide classroom technology applications. Hardware, software, advanced applications, computer lab operations and school-wide assistance are the major areas of intent in the course. Admission to Teacher Education.

### EDUC 3330 The Reading Process ..... 3 hrs. *Writing Intensive*

This course examines the components of reading, with emphasis placed upon word attack skills, reading comprehension and factors which affect reading progress. Admission to Teacher Education. PR: ENGL 1102.

### EDUC 3331 Reading in the Content Areas ..... 3 hrs. *Writing Intensive*

This is a reading methods course designed to provide content teachers with background information and instructional competencies necessary for teaching the reading and study skills essential to learning other subjects. This course also provides a rationale and practical applications for integrating instruction in

the reading process across all content areas. Admission to Teacher Education. PR: ENGL 1102.

**EDUC 3332 Pedagogy of Literacy (Reading and Language Arts Methods) ..... 3 hrs.**

Designed to address the curriculum, content, methods, materials, and assessment of effective literacy and language arts instruction in the elementary classroom. This course emphasizes analysis of developmentally appropriate standards and objectives, instructional models, active learning strategies, and evaluation methods for reading, handwriting, grammar, spelling, writing, oral communication, and listening. Attention is given to lesson and unit planning, selection of materials and resources needed to implement those plans, and assessment of learning at the age and grade level appropriate to the learner. PR Admission to Teacher Education and EDUC 3330. May be taken concurrently with EDUC 3331.

**EDUC 3340 Instructional Design II ..... 3 hrs.**

This course is designed to prepare teacher candidates to articulate and apply the standards of good assessment, design accurate assessments and be able to communicate results that maximize student learning success. The use of media and information technologies are emphasized to design learning activities/ lesson plans, assessment tools and the management of assessment data. Teacher candidates will understand the importance of using a variety of assessments for learning and of learning. This course integrates theory and practice in designing sequenced learning activities that address differences in learning styles, socio-economic, cultural, and developmental characteristics from Pre-K to adult student learning. Students will understand the basic tenets of positive intervention and supports in maintaining a safe and orderly classroom. The content of the course is organized to reflect and reinforce the WV Professional Teaching Standards, which are built on expectations of practice by organizations such as National Board, Charlotte Danielson's Framework for Teaching, CAEP, INTASC, and ISTE standards. Must be taken the semester prior to Student Teaching. PR: EDUC 2260, EDUC 2265, CR: EDUC 3365, EDUC 3351.

**EDUC 3350 Elementary Social Studies Methods ..... 3 hrs.**

This is a methods course in which prospective K-6 teachers translate content specific skills to the developmental levels, intellectual, emotional and social needs and learning styles of students. Activities focus on the acquisition of knowledge, skills, and dispositions through practice in selecting appropriate content, goals, and strategies for K-6 students and designing effective teaching and evaluation procedures. PR: Admission to Teacher Education and EDUC 2260.

**EDUC 3351 Inclusive Classroom Practices for Individual Differences ..... 3 hrs.**

*Writing Intensive*

This course is designed to prepare teacher candidates with a foundation for educating students with special needs in inclusive public school settings K-12. It provides information about the spectrum of students: those considered low and high incidence disabilities, those from culturally diverse backgrounds, and those at risk for school failure. It presents strategies for differentiating instruction, instructional adaptations and approaches to responding to students' behavior, and building social relationships. Approaches to analyzing, assessing and evaluating student needs and learning are addressed. Admission to Teacher Education. Must be taken the semester prior to Student Teaching. PR: ENGL 1102, EDUC 2260, EDUC 2265, CR: EDUC 3340, EDUC 3365.

**EDUC 3365 Field Experience 3 ..... 2 hrs.**

This course builds on cumulative experiences in previous field-based practica and is a semester long experience which must be completed in a Professional Development School / public school setting. The third clinical experience will allow the teacher candidate the opportunity to apply and reflect on his/her content area as well as pedagogical knowledge, skills, and dispositions in a classroom setting with a certified teacher. This experience will allow for immersion in the learning community so the teacher candidate can demonstrate proficiencies in the role for which s/he is preparing which include: assisting, tutoring, instruction and classroom management. The

teacher candidate will identify and develop a focus, review the literature and explore the context for the action research project that will be implemented in the student teaching clinical experience. CR: EDUC 3340 & EDUC 3351.

**EDUC 4485 Action Research ..... 1 hr.**

This course is taken concurrently with student teaching and consists of completing a capstone action research project. During the course, students will finalize a proposal for their project and implement their approved action research in the public school setting. At the completion of implementation, the teacher candidate will provide a final comprehensive analysis of the data, write and submit final reports, prepare and present the presentation of the project to peers and faculty. PR: EDUC 3365, CR: EDUC 4491 or EDUC 4496, and EDUC 4486.

**EDUC 4486 Portfolio ..... 1 hr.**

This course is taken concurrently with student teaching and consists of creating a five-part portfolio which showcases the students' best work based on the WV Teaching Standards. There is an emphasis on authentic artifacts that show evidence that the student can collect and select standard-based artifacts, and reflect on his/her professional growth in order to improve teaching practice and student learning. The teacher candidates will present the portfolio to peers and faculty. PR: EDUC 3365, CR: EDUC 4491 or EDUC 4496, and EDUC 4485.

**EDUC 4491 Elementary Student Teaching ..... 10 hrs.**

Full-time involvement in the teaching/learning process in a Professional Development School/public elementary school setting at the PreK-4/PreK-6 level is required for successful completion of this course. Student teachers will observe, assist, teach and manage a classroom under the supervision of a host public school teacher and college liaison. PR EDUC 3365, CR: EDUC 4485 & EDUC 4486

**EDUC 4496 Secondary Student Teaching ..... 10 hrs.**

Full-time involvement in the teaching/learning process in a Professional Development School/public school setting at the PreK-Adult level is required for successful completion of this course. Student teachers will observe, assist, teach and manage a classroom under the supervision of a host public school teacher and college liaison. PR: EDUC 3365, CR: EDUC 4485 & EDUC 4486.

**EDUC 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## ELECTRONICS ENGINEERING TECHNOLOGY

**ELEC 1100 Circuit Analysis I ..... 3 hrs.**

Introduction to the concepts of voltage, current, resistance, capacitance and inductance. Also covered are Kirchoff's Laws, with applications in basic DC-AC, series-parallel circuits. Basic electromechanical devices and transformers and three phase electrical circuits are studied. CR: MATH 1101 or better.

**ELEC 1120 AC/DC Electronics Analysis ..... 3 hrs.**

This course introduces students to the concepts of measuring voltage, current, and resistance of various ac and dc circuits. Students will build electronic circuits on a breadboard using discrete and integrated circuit components. The student will be introduced to electronic instruments, such as the digital multimeter, oscilloscope, function generator, and power supplies utilized extensively in a lab

setting. The student will learn how to use simulation software and make comparisons between theoretical and real-world results. CR: ELEC 1100

**ELEC 1199 Special Topics in Electronics Engineering Technology ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**ELEC 2200 Shop Practices..... 3 hrs.**

The student will learn to breadboard fundamental circuits, which is a building block for all subsequent lab based courses. Breadboarding will be accompanied with voltage, current, resistance measurements using a multimeter. An introduction to oscilloscopes and function generators is also included. Note: Extra costs are associated with this course, as the student will be purchasing equipment that will be used in several subsequent courses. CR: ELEC 1100.

**ELEC 2210 Circuit Analysis II ..... 3 hrs.**

Continuation of ELEC 100, including the theory and application of circuit analysis theorems. Also covered are nonsinusoidal waveforms, three-phase circuits and the use of computers in solving problems. PR: ELEC 1100, CR: MATH 1102, or better.

**ELEC 2225 Electronic Devices..... 3 hrs.**

Devices studied will include diodes, transistors, Op Amps, PLL's, and timers. The circuitry studied will include power supplies, basic amplifier types, power amplifiers, switching circuits, voltage regulators, comparators and active filters. PR: ELEC 1120. CR: ELEC 2210 and MATH 1102 or better.

**ELEC 2230 Digital Electronics..... 3 hrs.**

Theory and experimentation with SSI, MSI, and LSI devices and systems, including gates, flip-flops, counters, decoders, timers, displays, memories, etc., and such systems as thermometers, tachometers, meters, etc. PR: ELEC 1120, ELEC 2225.

**ELEC 2240 Industrial Electronics..... 3 hrs.**

Study of the operation of industrial power control systems, including power devices and control circuits. Power devices covered include relays, contactors, transistors, SCRs and TRIACs. Control circuits include UJTs, PUTs, DIACs, photo-devices, timers and control ICs. PR: ELEC 2225, ELEC 2230.

**ELEC 2250 AC-DC Machinery and Controls..... 3 hrs.**

Practical aspects in the use and maintenance of AC-DC machinery and power distribution, including motors, generators, starters, speed controllers, breakers, transformers, etc. PR: ELEC 1100, MATH 1102 or better.

**ELEC 2260 Communication Systems..... 3 hrs.**

Theory, operation, and maintenance of AVMA, FM, PM and digital communications systems. PR: ELEC 2225, ELEC 2230.

**ELEC 2270 Microcomputers ..... 3 hrs.**

Project-based learning using a multi-core microcontroller with A/D and D/A converters utilized and integrating an array of sensors, control high-speed stepper motors, and program a mini robot to navigate autonomously. PR: ELEC 2230.

**ELEC 2280 Programmable Controllers ..... 3 hrs.**

An introduction to programmable controllers and their application to sequential process control. Topics include basic operating characteristics, relays, timers, counters, sequencers, editing and on-line data control. Practical laboratory experiences will be provided in controller applications, programming, installation and maintenance. PR: ELEC 2230.

**ELEC 3300 Advanced Linear Electronics..... 3 hrs.**

A study of linear devices including OP AMPS, comparators, timers, filters, voltage references and current references. The course will include analysis and design concepts covering a wide range of linear circuits. This course satisfies the general studies "teamwork" requirement. PR: ELEC 2270, MATH 1185 or TECH 2290 or better.

**ELEC 3310 Advanced Microcomputer Systems ..... 3 hrs.**

This course is a continuation of ELEC 2270 utilizing multiple microcontrollers. The student will develop a combination of hardware/software skills and problem solving abilities to create, control and monitor various systems. PR: ELEC 2270.

**ELEC 3360 Communication Systems..... 3 hrs.**

Theory, operation, and maintenance of AVMA, FM, PM and digital communications systems. PR: ELEC 2225, ELEC 2230.

**ELEC 4401 Senior Electronics Project I..... 4 hrs.**

Instructor-approved capstone project. This course will allow the student to pursue specialized interests and show that s/he can manage and complete an individual project. This is a two course sequence (along with ELEC 4402) where the student will select a project with faculty approval; design the project, and perform preliminary testing of the project. Project management techniques will be utilized throughout the course. Baccalaureate majors only. PR: ELEC 2280, ELEC 3360, ELEC 3300 and ELEC 3310.

**ELEC 4402 Senior Electronics Project II..... 3 hrs.**

*Writing Intensive*

This is a Writing Intensive Course coordinated with the technical development within ELEC 4401. While completing ELEC 4401 capstone project; students will demonstrate, prepare and deliver an oral presentation, and submit a final report and presentation. PR: ENGL 1102 or better. CR: ELEC 4401.

**ELEC 4410 Data Acquisition and Control Systems..... 4 hrs.**

Theory and use of data acquisition and control systems, including transducers, signal conditioning circuits, multiplexing, A/D and D/A converters, computers and control devices. Baccalaureate majors only. PR: ELEC 2240, and ELEC 3300.

**ELEC 4420 Advanced Automation Controller Systems ..... 3 hrs.**

Advanced Programmable Logic Controller Course where the student will complete detailed applications for Allen-Bradley and Siemens PLC-HMI systems. This course is a combination of lecture and lab exercises to develop practical automation design applications. PR: ELEC 2280

**ELEC 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Instructor approval required.

## ENGLISH

**~ ENGL 1101 Written English I ..... 3-4 hrs.**

This course offers process-oriented practice in drafting, revising, and editing texts. Students learn the principles of expository writing, thesis formulation, organization, paragraph development, audience analysis, appropriate diction, and sentence structure. The course also includes an introduction to reading for content in texts selected from across the disciplines. Following WV state mandates, students scoring below 18 on the English section of the ACT, 450 in Critical Reading on the SAT-1, or 71 on the writing skills test of COMPASS, or the equivalent will be required to take an additional credit hour of supplemental instruction in English 1101, which will reinforce the skills necessary to generate college level essays. A "C" in English 1101 is a graduation requirement for all degrees.

**~ ENGL 1102 Written English II..... 3 hrs.**

A continuation of Written English I that provides experience in analyzing and writing argument and persuasive prose. A central

feature of the course is a library research project that is intended to develop familiarity with reference sources and skill in summarizing the diverse points of view of multiple sources. PR: A C or better in ENGL 1101. A "C" in English 1102 or English 1103, as determined by the academic department, is a graduation requirement for all degrees.

**ENGL 1103 Technical Report Writing ..... 3 hrs.**

This course provides practice in writing expository documents and technical reports. In addition to scientific/technical reports and proposals, students also write business letters, memoranda, and other types of written communication common to the industrial and business worlds. PR: A C or better in ENGL 1101. A "C" in English 1102 is a graduation requirement for all degrees.

**ENGL 2007 Shakespeare Road Trip..... 1 hr.**

The Shakespeare Road Trip provides students with a critical introduction to productions of plays by Shakespeare and others. Fees for tickets and travel expenses will apply. This course may be repeated for credit. PR: ENGL 1102.

**~ ENGL 2220 S-FSU World Literature I:  
Origins to 1650..... 3 hrs.**

A survey of literary masterpieces from around the world. Readings will include religious texts (such as the Bible, the Koran and the writings of Confucius); the epic (Gilgamesh, Homer and Dante); poetry (Li Po, Ovid and Petrarch); drama (Sophocles, Shakespeare and non-Western traditions such as Japanese Noh theater); and narrative fiction (tales from *The Thousand and One Nights*, *The Tale of Genji* and *Don Quixote*). PR: ENGL 1102 or ENGL 1103.

**~ ENGL 2221 S-FSU World Literature II:  
1650 to the Present..... 3 hrs.**

English 2221 offers a study in literary masterpieces, some in translation, from around the world, including satire (works by authors such as Moliere, Swift and Voltaire); drama (K'ung Shan-Jen, Ibsen, Chekhov, and Al-Hakim); poetry (Basho, Keats, Dickinson, and Eliot); the short story (Flaubert, Ichiyo, Lu Xun, and Gordimer); and the novel (Yasunari, Achebe and Desai). PR: 1108 or 1109.

**~ ENGL 2230 S-FSU Introduction to Literature I:  
Prose Narratives ..... 3 hrs.**

A study of narrative art both in fictional forms (the short story, the novel, allegory) and non-fictional forms (autobiography, personal essay), with readings from many cultures within a world context, giving substantial exposure to important works written in the last 100 years and to those written by women and minorities. PR: ENGL 1102 or ENGL 1103.

**~ ENGL 2231 S-FSU Introduction to Literature II:  
Poetry & Drama..... 3 hrs.**

A study of the forms and conventions of the genres through close reading, discussion, and written response. Students will survey representative works from fifth-century Athens to the most contemporary voices. Relevant exposure will be given to poems and plays by and about women and minorities. PR: 1108 or 1109.

**ENGL 2251 Introduction to Literary Studies ..... 3 hrs.**

An introduction to the formal study of literature focusing on reading and interpretation of texts from a variety of analytical approaches. The course highlights the wide range of literary critical methodologies and challenges students to articulate and reflect upon their own critical assumptions.

Offered in the fall only.

**ENGL 3301 Theories of Language and their  
Application to English I..... 3 hrs.**

This course covers the linguistic subjects of syntax, morphology, phonology, semantics and pragmatics, which provide concepts and techniques for understanding languages, with special emphasis upon English. Topics will include descriptive versus prescriptive grammar, dialect and register, synchronic and diachronic language variation, the history of English, language acquisition, the leading theories of language, language theory and the art of composition. Required of all prospective teachers of English; to be taken before Clinical III. PR: ENGL 1102.

**ENGL 3302 Theories of Language and their  
Application to English II..... 3 hrs.**

Continuation of ENGL 3301, emphasizing practical applications to teaching writing and grammar in grades 5-12. Required of all prospective teachers of English; to be taken before Clinical III. PR: ENGL 3301.

**ENGL 3303 Survey of Amer Lit I: Beginnings  
to the 1850s..... 3 hrs.**

*Writing Intensive*

A study of American literary traditions, from the poets, diarists and chroniclers of the seventeenth and eighteenth centuries to the writers of imaginative and autobiographical prose and poetry of the early/mid 1800s. PR: ENGL 2220.

**ENGL 3304 Survey of Amer Lit II: The 1850s to the  
Present ..... 3 hrs.**

*Writing Intensive*

A study of America's literary traditions from the 1850s to the present, including the poets, "local color" writers, naturalists and realists of the late 1800s; the experimental poetry and fiction of the early 1900s; the major dramatists; and a large sampling of the writers from the last half of the century. PR: ENGL 2221.

**ENGL 3313 Survey of British Literature I..... 3 hrs.**

*Writing Intensive*

This course offers a study of British literature beginning with Beowulf and continuing through the eighteenth century, including Chaucer, Shakespeare, Donne, Milton, Swift, and Pope. Recent recovery of female writers such as Lanyer, Cavendish, Whitney, and Behn and scholarship on them is also reflected in the design of the course. PR: English 2220.

**ENGL 3314 Survey of British Literature II..... 3 hrs.**

*Writing Intensive*

This course offers a study of British literature from the early Romantic period through the present day, including such writers as Blake, Wordsworth, Austen, Tennyson, Dickens, Yeats, Shaw, Woolf, Joyce, Eliot, Beckett, and Auden. The purpose of this course is to give students an overview of the major literary and historical movements in Britain and its colonies in the last two hundred years, while introducing students to a basic vocabulary of literary terms and critical theory. PR: English 2221.

**ENGL 3320 Literary Criticism..... 3 hrs.**

A study of past and present critical methods and of the theoretical assumptions upon which they are based. PR: ENGL 3303 or 3313.

**ENGL 3332 Narrative and Descriptive Writing ..... 3 hrs.**

*Writing Intensive*

Narrative and Descriptive Writing provides intensive practice in narrative and descriptive techniques in fictional, non-fictional, dramatic and poetic modes of writing. Utilizing a workshop format promotes reciprocity in the classroom between professor and students and among students. The course does not require experience in writing creatively but rather provides instruction and practice in the craft of writing. Students work in several creative modes for different audiences and purposes. PR: ENGL 1102.

**ENGL 3333 Writing Non-Fiction ..... 3 hrs.**

*Writing Intensive*

Study and practice of the various kinds of expository writing. PR: ENGL 1102.

**ENGL 3344 Writing Poetry..... 3 hrs.**

*Writing Intensive*

A workshop-based, individual-centered course in which students examine the tradition of poetry and poetics and how their own interest in writing poems may work within and against that tradition. The emphasis is on writing, revising and presenting poems in workshop format and potentially professionally. Students will also read and respond to modern poems and essays on poetics. Students are advised to first take ENGL 3332. PR: ENGL 1102.

**ENGL 3345 Writing Fiction..... 3 hrs.***Writing Intensive*

A workshop-based, individual-centered course in which students examine the tradition of fiction and how their own interest in writing stories may work within and against that tradition. The emphasis is on writing, revising and presenting stories in workshop format and potentially professionally. Students will also read and respond to modern stories and essays on fiction. Students are advised to first take ENGL 3332. PR: ENGL 1102.

**ENGL 3349 Advanced Technical Communication ..... 3 hrs.***Writing Intensive*

This course places special emphasis on the preparation and implementation of the extensive, formal report in business, industry and public service organizations. As such, it will feature an introduction and orientation to source materials for advanced technical research and presentation, and it will also address the use of technical language for informed and uninformed audiences. PR: ENGL 1102 or ENGL 1103.

**ENGL 3354 Children's Literature ..... 3 hrs.**

This course seeks to acquaint students with a number of major works in the field of children's literature, while providing approaches to appreciate and evaluate such texts. Offered Fall semester only. PR: ENGL 1101.

**ENGL 3355 Young Adult Literature..... 3 hrs.**

This course seeks to acquaint students with a number of major works in the field of young adult literature, while providing approaches to appreciate and evaluate such texts. PR: ENGL 2220 or ENGL 2221 or ENGL 2230 or ENGL 2231.

**ENGL 3356 Fantasy, Science Fiction, and Magical Realism ..... 3 hrs.**

This course seeks to acquaint students with a number of major works of highly imaginative literature by such writers as George MacDonald, J.R.R. Tolkien, H. P. Lovecraft, Angela Carter, Ray Bradbury, Philip K. Dick, Franz Kafka, Gabriel Marquez, Salman Rushdie, and Jorge Luis Borges. While providing approaches to appreciate and evaluate such texts, the course will also address cultural/literary assumptions about the value of fantasy, both in fiction and in human development. PR: ENGL 2220 or ENGL 2221 or ENGL 2230 or ENGL 2231.

**ENGL 3361 American Romanticism ..... 3 hrs.**

This course studies the works of three or four writers most closely associated with nineteenth-century American Romanticism. Among the writers who may be chosen for study are Irving, Poe, Hawthorne, Emerson, Thoreau, Melville, Whitman, and Dickinson. PR: ENGL 3303.

**ENGL 3362 American Realism and Naturalism ..... 3 hrs.**

This course offers a study of the work of four or five realist and naturalist writers and the intellectual and historical context in which they worked. Such writers may include James, Twain, Crane, Dreiser, Norris, Howells, Cather, Wharton, Chopin, Jewett, and Garland. PR: ENGL 3304.

**ENGL 3363 The American Novel..... 3 hrs.**

This course traces the development of the American novel from the late eighteenth century to the present. Important American novels will be analyzed in a chronological sequence. PR: ENGL 3303 or 3304.

**ENGL 3364 Appalachian Literature ..... 3 hrs.**

This course identifies and analyzes representative examples of writers and their literature (poetry and prose) that have grown out of the Appalachian Region. Major emphasis is placed on the cultural, historical, geographical, and social elements that have influenced the themes and points of view of the literature. Selected nonprint (film) interpretations of both the region and its literature are a part of the course content and serve as important learning strategies for projecting the tone and atmosphere of the region and in establishing, and reinforcing, its stereotypes and imagery both inside and outside the region. PR: ENGL 2221.

**ENGL 3365 American Modernism..... 3 hrs.**

This course will examine the artistic and literary movements in the early 20th century that continue to shape ideas of literature, reading, art, and taste. With attention to the avant-garde, readings will include high-modernists like Eliot, Hemingway, and Pound, as well as those writers less obviously participating in the aesthetic directives posed by the era. PR: ENGL 3304.

**ENGL 3366 Contemporary Literature..... 3 hrs.**

This course examines the ways in which visual and written texts have illustrated shifts in political and linguistic thought since mid-century. Students will need patience and a good sense of humor and must be prepared to encounter assaults to their most precious assumptions with an open mind. The graphic novel, performance art, experimental poetry, and other hybrid texts will be studied alongside familiar literary forms revised for current concerns. PR: ENGL 3304 or 3314.

**ENGL 3370 Literature of the Middle Ages..... 3 hrs.**

This course presents a study of English and continental European literature of the Middle Ages. Genres covered include the chronicle, romance, fabliau, beast fable, lyric, saint's legend and drama. PR: ENGL 3313.

**ENGL 3373 Chaucer ..... 3 hrs.**

Our primary objective is to read and understand Chaucer's *Canterbury Tales* in the language in which he wrote. We will learn a bit about the Middle Ages in general, and we will learn that the study of a great medieval poet may teach us something about ourselves. PR: ENGL 3313.

**ENGL 3374 Shakespeare..... 3 hrs.***Writing Intensive*

A study of Shakespeare's poetry and plays. PR: ENGL 3313.

**ENGL 3375 Later Renaissance British Literature..... 3 hrs.**

A study of British literature and culture during a century of great change.? From the death of Elizabeth I to the Civil War, from the Interregnum to the Restoration, from England's national boundaries to its explorations and colonialist origins, we will survey poets, their prot?g?s, and their subjects; the drama as it shifts from court masque to city comedy, from boys playing women to women taking to the stage and writing for the stage; the rise of women taking up the pen in support of their faith, their families, and themselves.? Our major figure for the period is John Milton. PR: ENGL 3313.

**ENGL 3377 Literature of the Enlightenment..... 3 hrs.**

This course examines social and intellectual developments of the European Enlightenment through writers representing the perspectives of both the "Ancients" (such as Dryden, Behn, Pope, and Swift) and the "Moderns" (such as Congreve, Defoe, Haywood, and Voltaire). PR: ENGL 3313

**ENGL 3378 British Romanticism..... 3 hrs.**

A concentrated study of the works of such writers as Blake, Wordsworth, Coleridge, Byron, Shelley and Keats. PR: ENGL 3314.

**ENGL 3379 Literature of the Victorian Period..... 3 hrs.**

A concentrated study of the works of such writers as Tennyson, Browning, Rossetti, Arnold, Swinburne, Mill, Ruskin and Carlyle. PR: ENGL 3314.

**ENGL 3380 Twentieth-Century British Literature ..... 3 hrs.**

A study of the major texts in 20th-century British literature that reflect the cultural, social and literary issues of the time. Among the writers who may be studied are poets, from Yeats and Eliot to Heaney and Larkin, playwrights such as Beckett and Stoppard and fiction writers, from Joyce and Waugh to Fowles and Drabble. PR: ENGL 3314.

**ENGL 3381 The British Novel ..... 3 hrs.**

A historical and critical study of significant British novels of the eighteenth, nineteenth, and twentieth centuries. PR: ENGL 3313 or 3314.

**ENGL 3382 The World Novel ..... 3 hrs.**

This course offers a study of the enduring accomplishments of the novelists of Europe, Latin America, and other regions. Novels to be read may include those of Cervantes in the 1600s; Voltaire and Goethe in the 1700s; Flaubert, Tolstoy, and Dostoevsky in the 1800s; and Kafka, Camus, Kundera, and Marquez in the 1900s. PR: ENGL 2220.

**ENGL 3383 Epic Tradition..... 3 hrs.**

In this course we will study the evolving epic tradition, covering 4000+ years of history, and draw our reading selections from a wide range of places, cultures, and perspectives. Our focus will be on the canonical western tradition (Homer, Virgil, Milton, et. al.) but we will also make forays into the literatures of the Near East, India, and Africa. PR: ENGL 2220 or ENGL 2221.

**ENGL 3385 The Arthurian Tradition..... 3 hrs.**

This course surveys Arthurian literature from its 12th-century origins to the present day. It will include analysis of the archaeological evidence for a historical Arthur, as well as the Celtic background from which the legends spring. PR: ENGL 1102.

**ENGL 3386 The Bible as Literature ..... 3 hrs.**

This course focuses on the literary history, interpretation and genres of the Bible, as well as significant biblical tropes, metaphors and narratives. PR: ENGL 2220 or ENGL 2221 or ENGL 2230 or ENGL 2231.

**ENGL 3387 Folk Literature ..... 3 hrs.**

This course is an analysis of the components and genres of oral folk literature through poetry (the folk song, ballad and instrumentation), narrative (myths, legends, folktales, fables, morals, anecdotes, personal narratives and other forms of folk narrative), and language (verbal lore, such as dialect/accents, beliefs and superstitions, proverbs, sayings, riddles and jokes) within the contextual process of perpetuation (storytelling) and preservation (collecting and motifying). Emphasis will be placed on the Appalachian cultural perspective. A field study will be part of the course. Also listed as FOLK 3300. PR: ENGL 2220.

**ENGL 3388 Women's Literature ..... 3 hrs.**

A study of classic texts in women's literature, including works by writers such as Aphra Behn, Jane Austen, Kate Chopin, Virginia Woolf, and Amy Lowell. Students will also study works by contemporary female writers, representing American, British, and other world literatures. PR: ENGL 2220 or ENGL 2221 or ENGL 2230 or ENGL 2231.

**ENGL 3389 Minority Literature..... 3 hrs.**

A study of writers and forms traditionally omitted from the American literary canon, this course tracks the writing of people unacknowledged by conventional versions of American history with attention to their experimentation with literary genre and disciplinary boundaries. PR: ENGL 2220 or ENGL 2221 or ENGL 2230 or ENGL 2231.

**ENGL 3390 Modern Drama ..... 3 hrs.**

This course examines world drama from the nineteenth-century to the present. PR: ENGL 2221.

**~ ENGL 3391 The Short Story..... 3 hrs.**

This course offers a critical study of this art form based upon the work of authors from around the world. PR: ENGL 2221.

**ENGL 3392 Contemporary Poetry..... 3 hrs.**

This course focuses on roughly ten poets from around the world whose works have been published in the last thirty years. Discussions of poetic movements and strategies shaped by and influencing the writers and their audiences accompany study of the primary texts. PR: ENGL 2221.

**ENGL 3393 Southern Literature..... 3 hrs.**

This course offers a study of representative Southern authors and works from colonial times to the present, emphasizing characteristically Southern themes and the diverse points of view

that have made up the American South, including those of women, African-Americans, and other minorities. The experience of defeat and experience of colonization are studied. Included are such figures as Harris, Chesnut, Twain, Chopin, Hurston, Toomer, Wolfe, Faulkner, Welty, Ransom, and O'Connor. PR: ENGL 3303 or 3304.

**ENGL 3394 The Art of the Motion Picture..... 3 hrs.**

A course designed to trace the evolution of the motion picture from its beginnings to the achievements of the present. Such aspects of the film as genre (the western, the horror film), techniques (sound, editing, photography), themes (forbidden knowledge, vengeance), and character types (cops, comics, crooks) will be considered. Although this course is intended for serious students of the verbal and visual arts, it is also designed to accommodate (as an elective) interested students who are avid filmgoers and desire to improve their appreciation of the films they see. PR: ENGL 2220 or ENGL 2221 or ENGL 2230 or ENGL 2231.

**ENGL 3395 Journeys in Comparative Mythology ..... 3 hrs.**

A cross-cultural study of cosmic myth, investigating explanations offered by various peoples to questions that have been asked since the dawn of time. The course includes mythological traditions such as Greco-Roman, Norse, Mesopotamian, African, Celtic, Indian, Chinese, South American and Native American. PR: ENGL 2220.

**ENGL 3396 Literature and Film..... 3 hrs.**

By comparing literary texts to cinematic versions of those texts, this class explores the differences between the modes of verbal and visual representation. The selection of texts will focus on an author or theme selected by the professor, such as Shakespeare, Jane Austen, London, the Western Hero, or Desiring Women. PR: ENGL 2220 or ENGL 2221 or ENGL 2230 or ENGL 2231.

**ENGL 3399 Special Topics in English..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs. PR: ENGL 1102.

**ENGL 4400 Senior Seminar ..... 3 hrs.**

This advanced course will introduce English majors to the rigors of graduate-level work. The subject matter, which will vary, will be tightly focused on a specific area of study. Students will use advanced research skills and demonstrate a thorough understanding of the relevant scholarship in the field. Because the subject matter will change from semester to semester, this course may be taken more than once. PR: ENGL 3320.

**ENGL 4431 Methods and Materials in Teaching English..... 3 hrs.**

Study and practice in the techniques of teaching the fundamentals of grammar, mechanics, composition and the varied types of literature; taken as part of the Initial Performance Practicum. PR: ENGL 3355 and 3374.

**ENGL 4441 Independent Study..... 1-4 hrs.**

Intensive study in the work of one or more significant authors. Subject area to be suggested by the student and approved by the instructor. The student may conduct an independent investigation in an area of interest and represent the results in one or more research papers. Instructor approval required.

**ENGL 4489 Writing for Literary Conferences ..... 1 hr.**

This course prepares students for presenting their literary papers at academic conferences. PR: Instructor approval required.

**ENGL 4491 Writing Internship..... 3 hrs.**

Writing internships allow students to apply their communication (verbal and written) and critical thinking skills in writing for business and non-profit organizations. A GPA of 3.25 and completion of 18 hours toward the English major are required. This course may be repeated for credit. Instructor approval required.

**ENGL 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that

provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level. This course may be repeated for credit. Instructor approval required.

## ENGLISH AS A SECOND LANGUAGE

\*Registration restricted to ESL students only.

### ESLG 0051 Elementary Academic Reading..... 3hrs.

In the class, students develop and practice it in context. Reading as a central means of processing forms and ideas will help establish academic skills of critical thinking in English. The skills of prediction, the comprehension of main ideas and details, and the importance of inferences are all required. In addition, students will become familiar with parts of speech, prefixes, suffixes, and roots as aids in understanding new vocabulary. Repeatable.

### ESLG 0052 Elementary Composition ..... 3 hrs.

Students develop sentence, paragraph, and essay writing skills. Students focus on learning grammatical structures and use this knowledge within the writing context. Students also develop strategies to improve their organizational skills and to expand and practice new vocabulary. Repeatable.

### ESLG 0053 Elementary Speaking and Listening..... 3 hrs.

This course introduces international students to a variety of speaking and listening exercises that will improve their academic success in the university setting. Each week, a new topic or subject will be introduced and discussed informally in a classroom discussion. Every two weeks, students will be assigned additional speaking assignments to continue more-in-depth formal discussions or presentations on the assigned topics. Repeatable.

### ESLG 0054 Elementary Grammar Studies..... 3 hrs.

This is a beginning level content-based grammar course designed for students who are preparing to enter American colleges and universities. The class will focus on improving English grammar through listening, speaking, reading, and writing activities. Additionally, some emphasis will be placed on Test of English as a Foreign Language (TOEFL) grammar. Repeatable.

### ESLG 0055 Elementary Vocabulary and Pronunciation ..... 3 hrs.

This course focuses on the ability to express oneself clearly, with maximum comprehensibility. Students practice the important skills of pronunciation, stress, vowel reduction, length, phonetics, rhythm, timing, and intonation. Vocabulary development, facility with idiomatic expressions, and thematic coherence are emphasized. Each participant's particular needs are evaluated regularly as part of the course, and strategies for improvement are provided through daily assignments, drills, presentations, listening practice, discussion, and peer-evaluations. Repeatable.

### ESLG 0056 Elementary TOEFL Strategies..... 3 hrs.

This course provides international students with a better grasp of English to help them succeed in the TOEFL. The course focuses on techniques related to various sections of the TOEFL. The class aims to prepare for the test so that they will have language skills and the familiarity with the university setting to be successful at the University.

### ESLG 0057 Elementary American Culture ..... 3 hrs.

This course assists new and experienced ESL students in achieving a positive experience of study in a new culture. Class topics in American culture focus on the practical aspects of day-to-day life in the United States. Repeatable.

### ESLG 0061 Intermediate Academic Reading..... 3 hrs.

Students develop skills in prediction, comprehension of main ideas and details, and inferences. Reading comprehension activities include, in addition to writing and texts, independent, small-group, and whole class activities. Both short reading passages and more extensive texts, such as abridged novels, provide sustained practice and content. Repeatable. PR: ESLG 0051.

### ESLG 0062 Intermediate Composition..... 3 hrs.

Students develop sentence, paragraph, and essay writing skills necessary to write a coherent effective academic essay. These skills include the development of organization skills, expansion of vocabulary, and grammatical structures. Students will be assigned in-class and out-of-class reading and writing activities. Repeatable. PR: ESLG 0052.

### ESLG 0063 Intermediate Speaking and Listening..... 3 hrs.

This course builds on ESLG 0053 to help students improve their speaking and listening abilities in English. The course continues the informal discussion of topics and the speaking assignments students were introduced to in ESLG 0053. Repeatable. PR: ESLG 0053.

### ESLG 0064 Intermediate Grammar Studies ..... 3 hrs.

This content-based grammar course, designed for students who are preparing to enter American colleges and universities, builds on ESLG 0054. The class centers on deepening students' grasp of English grammar through listening, speaking, reading, and writing activities. Students are introduced to complexity, such as the perfect tenses. Additionally, students focus on TOEFL grammar. Repeatable. PR: ESLG 0054.

### ESLG 0065 Intermediate Vocabulary and Pronunciation ..... 3 hrs.

This course develops the spoken communication skills necessary for college-level study. Students improve the important skills of pronunciation -- stress, vowel reduction, length, phonetics, rhythm, timing, and intonation. Vocabulary studies build upon those from ESLG 0055. Speaking topics are designed to allow students to apply the content, language, grammar, and style they have practiced in their texts and cassettes. Repeatable. PR: ESLG 0055.

### ESLG 0066 Intermediate TOEFL Strategies..... 3 hrs.

This course continues the building of skills begun in ESLG 0056 to prepare international students for TOEFL. The course strengthens the techniques students learned in ESLG 0056 for TOEFL. The class aims to consolidate students' language skills so that they will be successful at the University. Repeatable. PR: ESLG 0056.

### ESLG 0067 Intermediate American Culture ..... 3 hrs.

This course builds on ESLG 0057 to help new and experienced ESL students become more comfortable with American culture focus. Topics focus on the psychosocial aspects of coping with a new culture and language. Repeatable. PR: ESLG 0057.

### ESLG 0071 Advanced Academic Reading ..... 3 hrs.

Students learn the skills necessary to comprehend academic texts, news articles, and essays. They also read two full-length novels for sustained practice and development. Discussions, vocabulary dynamics and writing develop skills in: the comprehension of main ideas, details, and inferences. Repeatable. PR: ESLG 0061.

### ESLG 0072 Advanced Composition..... 3 hrs.

This is a continuation of ESLG 0062. The course covers all aspects of subordination for improved clarity of ideas and stylistic variation in writing. The course includes an introduction to research and documentation. Students are encouraged to bring to class for "workshopping" specific problems in writing from other courses. Repeatable. PR: ESLG 0062.

### ESLG 0073 Advanced Speaking and Listening ..... 3 hrs.

This course reinforces the speaking and listening skills students developed in ESLG 0063. The course aims to have international students ready to participate in college-level courses with native speakers of English. Repeatable. PR: ESLG 0063.

**ESLG 0074    Advanced Grammar Studies ..... 3 hrs.**

This content-based grammar course, designed for students who are preparing to enter American colleges and universities, completes the ESL grammar sequence. The class strengthens students' grasp of English grammar through listening, speaking, reading, and writing activities. The course reinforces and builds on skills students gained in ESLG 0064. Additionally, students focus on TOEFL grammar. Repeatable. PR: ESLG 0064.

**ESLG 0075    Advanced Vocabulary and Pronunciation**

Vocabulary development, facility with idiomatic expressions, and thematic coherence are emphasized. The course focuses on the ability to express oneself clearly, with maximum comprehensibility continues from ESLG 0065 with advanced study in stress, vowel reduction, length, phonetics, rhythm, timing, and intonation. Vocabulary development, facility with idiomatic expressions, and thematic coherence are emphasized. Repeatable. PR: ESLG 0065.

**ESLG 0076    Advanced TOEFL Strategies ..... 3 hrs.**

This course helps international students consolidate skills acquired ESLG 0066 so that they can be successful on TOEFL. Using techniques related to various sections of TOEFL, the course prepares students to be successful in study at the University. Repeatable. PR: ESLG 0066.

**ESLG 0077    Advanced America Culture ..... 3 hrs.**

This course builds on ESLG 0067 to help new and experienced ESL students to consolidate their familiarity with American culture. Both practical and psychological aspects of adjusting and assimilating to American culture are reinforced. Repeatable. PR: ESLG 0067.

**FINANCE****FINC 3307    Personal Finance ..... 3 hrs.**

A study of the problems a consumer must face in his or her day-to-day buying and living. It includes a brief survey of budgets, life insurance, investments, managing personal finance, buying services and other consumer issues. PR: BSBA 2221, BSBA 2212.

**FINC 3315    Venture Finance ..... 3 hrs.**

A study of capital markets and sources, with particular emphasis on the development of skills and resources required to obtain the financial capital for entrepreneurial ventures. Major topics include attracting seed and growth capital from sources such as individuals, venture capitalists and institutional financiers. Case analyses present various ways that entrepreneurial companies have creatively identified, negotiated and structured financing. Students will prepare a financial proposal for the funding of an entrepreneurial venture. PR: MGMT 3350.

**FINC 3350    Investments ..... 3 hrs.**

This is an introductory survey course covering the broad field of investments, with a descriptive rather than quantitative approach. There is substantial emphasis on terminology and vocabulary, and the course covers fixed- and variable-return investments, options and futures, markets and brokerage operations, portfolio theory and analysis and real estate investments. PR: BSBA 2221.

**FINC 3384    Bank Management ..... 3 hrs.**

This course examines the principles and practices of contemporary bank management. It covers the various aspects of bank organization and operation, capital formation and utilization, asset/liability management, planning, law and regulation, internal control, competition and deregulation, the evolution of banking and some selected current issues in banking. PR: BSBA 2221.

**FINC 3385    Analyzing Financial Statements ..... 3 hrs.***Writing Intensive*

This course provides the student with the necessary techniques and tools to evaluate the financial condition and operating performance of a modern business. It will cover the terminology of financial analysis, horizontal and vertical analysis, financial ratios,

pro-forma statements, funds flow analysis, break-even analysis and other analytical tools. PR: ENGL 1102, BSBA 2221, BISM 2200.

**FINC 4410    Managerial Finance ..... 3 hrs.**

This advanced course is designed to extend the coverage of the field of corporate finance, with emphasis on capital budgeting, risk, capital structure and dividend policy and financing decisions. Special topics covered will include mergers and acquisitions, financial distress and international corporate finance. PR: BSBA 3310, FINC 3350.

**FINC 4412    PC Applications for Managerial Finance ..... 3 hrs.**

This course is designed to enable students to master the concepts and techniques of corporate finance using PC applications. The course will be taught in the computer lab, making extensive use of spreadsheet models and templates. The effect of policy will be measured and analyzed, and problems solved through the use of multiple case studies. Topics to be covered include financial analysis, financial forecasting and planning, capital budgeting and cost of capital. PR: FINC 4410.

**FINC 4998    Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**FOLKLORE STUDIES****FOLK 2200    S-FSU Introduction To Folklore ..... 3 hrs.**

This course is an introduction to conceptual foundations in folklore, such as its social base, tradition, folklore and cultural history, folklore as projection, genre, function, structure, text and context, through a historical and philosophical survey of approaches to folklore topics. Emphasis will be placed on the Appalachian cultural perspective. A field study lab of one hour will accompany this course.

**FOLK 2201    Lab Field Research/Oral History Techniques ..... 1 hr.**

This lab must be taken along with Introduction to Folklore before any of the other courses in the program. It is a study of the theories, techniques and procedures of field research as they apply to all folk study genres, along with the legal and ethical considerations, uses and planning of local oral history projects.

**FOLK 2150    Folk Arts ..... 3 hrs.**

This studio course is designed to give students a hands-on learning approach to the historical understanding and making of traditional/historical folk arts. Various materials will be used including fiber, wood, metal, paper, natural materials, and more to explore weaving/quilting, carving, tinsmithing/metal tooling, marbling/book binding/band box construction, doll making, and other traditional folk arts and crafts. An element of research will also be included in this course. This course, as a component of the Museum Studies program, will emphasize the application of folk art making skills to that of museum interpretation. Also listed as MUSM 2150.

**FOLK 3300    Folk Literature ..... 3 hrs.**

This course is an analysis of the components and genres of oral folk literature through poetry (the folk song, ballad and instrumentation), narrative (myths, legends, folktales, fables, morals, anecdotes, personal narratives and other forms of folk narrative), and language (verbal lore, such as dialect/accents, beliefs and superstitions, proverbs, sayings, riddles and jokes) within the contextual process of perpetuation (storytelling) and preservation (collecting and

motifing). Emphasis will be placed on the Appalachian cultural perspective. A field study will be part of the course. Also listed as ENGL 3387. PR: ENGL 1102.

**FOLK 3301 Material Culture ..... 3 hrs.**

A study of the tangible evidence of civilization, through the perspective of the Appalachian culture. Material culture is presented within the context of folklife and traditional craftsmanship, including crafts, art, traditional foodways, clothing, tools and technology. Students will examine the study of material folk culture from various methodological and theoretical perspectives, including artifactual analysis and fieldwork. Also listed as MUSM 3301.

**FOLK 3302 Regional Cultural Geography and History ..... 3 hrs.**

A study of regional personality through the relationship and attitudes of people to land and land use, along with migration patterns, archaeological perspectives, behavior and popular customs. In a field study, archival techniques and research will be examined.

**FOLK 3320 The Art of Storytelling in Theory and Practice ..... 3 hrs.**

The emphasis of the course will be on both the theory and research related to storytelling and the art of storytelling as performance. In this performance-based course, students will select, craft, rehearse and perform stories suitable to a variety of audiences. Students enrolled in this course are required to attend the National Storytelling Festival in Jonesborough, Tennessee. Also listed as THEA 3320 and COMM 3320.

**FOLK 3350 Roads to Appalachia Study Abroad ..... 3 hrs.**

"Roads to Appalachia Study Abroad" is one of our primary educational programs that offers college students, educators, and community members opportunities to study and travel to parts of the world from which the populations of Central Appalachia has taken its cultural roots. "Roads to Appalachia" has featured research, study, and travel to such areas as Scotland and Ireland, Italy, England and Wales, Eastern Europe, and the Germanic Regions of Belgium/Southern Germany/Northern Switzerland. "Roads to Appalachia Study Abroad," FOLK 3350, is a course is designed to support an approximate two-week travel study to a selected cultural region. The course will study the historical and cultural context, geographical / geological and natural features, architectural landmarks and historical monuments, regions and cities, museums and galleries. Cultural and historical awareness (classical and traditional) will be emphasized through the study of the selected countries' folklore / folklife; regional, social, political, and religious history; geography, folk arts and crafts; costumes and dress; traditional life living museums; sources of the folk tales; architecture; traditional food; and folk music (song, instruments, and dance). Study will rely on texts, films, guided discussions, guest lectures, culinary tastings, and student research and presentations.

**FOLK 3361 Introduction to Folk Music ..... 3hrs.**

Introduction to Folk Music is an elective course focused on the combination of historical events that resulted in the major early settlement of the Appalachian Mountains, the music and instruments connected with the people who lived in those mountains, the interaction of their music styles and cultures, and the unique music that emerged and eventually birthed much of the music heard today. It is an interactive class that uses traditional oral methods to learn and play songs on a heritage instrument in both individual and jam sessions. No prior experience or musical knowledge is required and mastery of the instrument is not difficult. **Cross-listed as MUSI 3361.**

**FOLK 4400 Directed Folklore Study ..... 3-6 hrs.**

This course provides intensive study, reading, and research of a folklore topic selected by a student with an opportunity to mentor with a specialist in the field. Topics will be interdisciplinary, such as the following: Appalachian (Regional/Written) Literature, Ethnography and Process of Storytelling, Urban and Popular Culture, Children's Folklore, Traditional Folk Music (Vocal and Instrumental), Appalachian African-American Lore, Rural Education, Arthurian Legend: Comparative Folk Literature Study, and Vintage Clothing

Preservation. Note: If an existing course is available on campus reflecting any of these topics, a student may opt to take it, with the approval of the Folklore Studies advisor. The West Virginia Folklife Center at Fairmont State and the Folklore Studies advisor will also help students to network with specialists in the community. This course is for seniors only.

**FOLK 4401 Folklore Applications ..... 3 hrs.**

An analysis of the various areas of folklore application, ranging from teaching/pedagogy, museum interpretations, and publications to the care, interpretation and presentation of artifacts. An internship and/or individual project will conclude the course. PR: All other courses in the minor program. This course is for seniors only.

**FOLK 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## FOOD SERVICE MANAGEMENT

**FOSM 1100 ServSafe® ..... 1 hr.**

Students will master multiple modules relating to topics on food service sanitation. Upon completion of the course, students will be prepared to successfully take the ServSafeA exam.

**FOSM 1110 S-C&TC Nutrition ..... 3 hrs.**

This course is a study of the nutrients, their sources, and their relationship to body functions. Each stage of the life cycle will be studied as it relates to changing nutritional requirements for individuals and family groups of varying cultural and economic levels. Students will evaluate their daily nutritional intake against recommended daily allowances.

**FOSM 1119 Intro to the Food Service and Hospitality Industry ..... 3 hrs.**

This course is an overview of all aspects of the hotel, foodservice, restaurant, and travel and tourism businesses, including operations, marketing, and sales. Trends in this rapidly changing industry will be stressed

**FOSM 1120 Nutrition in Childhood & Adolescence ..... 3 hrs.**

This course will provide an overview of basic nutrition as well as nutrient standards used to evaluate nutrition status among Americans. Specific focus will include nutrition needs from pre-pregnancy through adolescence. Students will evaluate the new dietary guidelines and food pyramid system and complete a menu planning assignment and a computer-aided diet analysis for an individual between the ages of 2-18.

**FOSM 1121 Food Service Facilities & Equipment ..... 3 hrs.**

The emphasis is on food service equipment selection and layout in relation to production and workflow. Specifications, energy sources, use and care of food service equipment will be included in the course. Students will demonstrate the utilization and care of selected food service equipment in a laboratory setting.

**FOSM 1122 Safety & Sanitation ..... 2 hrs.**

This course is a look at the latest information in the science of food safety along with appropriate principles to maintain food safety in an operation and to protect against food borne illness. This course incorporates the National Restaurant Association's certification curriculum. Students completing the final certification exam with a minimum score of 75% will be issued a certificate of completion.

**FOSM 1130 Basic Baking..... 3 hrs.**

This course applies the fundamentals of the baking science to the preparation of a variety of pastry and baking products. Will include the use and care of equipment normally found in a bakeshop or baking area. PR or CR: FOSM 1121, FOSM 1100 or FOSM 1122. Majors only.

**FOSM 1140 Food Service Cost Analysis and Management..... 3 hrs.**

This course will enable students to perform basic cost analysis related to food service operations. The student will perform calculations associated with food costs, labor costs, menu pricing, and other pertinent management functions.

**FOSM 1150 Sports Nutrition..... 3 hrs.**

This course will provide an introduction to sports nutrition including definitions of sports nutrition and general nutrition concepts, a review of digestion and energy metabolism, a thorough explanation of macronutrients, micronutrients, and water as they relate to athletic performance. The course will also review the most current research as it relates to the energy systems and specific nutrition needs of athletes in three categories - endurance, strength/power, and team sports.

**FOSM 1155 Cafeteria Management in Schools..... 3 hrs.**

This course will provide an overview of basic child nutrition operations as well as managerial skills and knowledge of managing child nutrition programs. Course outcomes will equip cafeteria managers with the necessary knowledge, skills and work practices to positively impact their programs and improve work practices to support program changes that address the many health issues confronting our children. PR: Successful completion of the Cafeteria Manager's Institute (a 3-day training session provided by the WVDE) is required as a prerequisite to enrollment.

**FOSM 1189 Guided Experience I ..... VAR 1-4 hrs.**

This course will be a guided experience for community college students to explore topics of interest in their field through research, field experience, presentation, computer applications, lab experience, or other project agreed upon between the student and the supervising faculty and is submitted to the dean in a written contract. Credits earned may be applied as free electives in degree or certificate programs. May be repeated for up to 4 hours. Instructor approval required.

**FOSM 1199 Special Topics in Food Service..... 1-12 hrs.**

Special topics will be studied, to be determined by the instructor and approved by the school's dean. Credits earned will be applicable as free electives in degree and certificate programs.

**FOSM 2200 Introduction to Foods ..... 3 hrs.**

This course is a study in the selection, storage, preparation, and presentation of food. This three credit hour course will investigate each of the following categories of food and apply knowledge gained to laboratory applications: Milk & Dairy Products; Meat, Poultry & Shellfish; Fruits & Vegetables; Grains & Starches; Breads; Desserts; & Beverages. Emphasis will be placed on meal planning, food safety, nutrient value, and quality in taste and appearance.

**FOSM 2201 Principles of Food Selection & Preparation..... 3 hrs.**

This course provides a study of the selection, storage, preparation, and presentation of food. Students will investigate each of the following categories of food and apply knowledge gained to practical applications in the laboratory setting: Stocks and sauces, soups, meat and game, poultry and game birds, fish and shellfish, vegetables, potatoes and starches, salads and salad dressings, sandwiches, breakfast preparation, and dairy products. Emphasis will be placed on ensuring food safety, nutrient value, and quality in taste and appearance. FOSM majors only. PR: To be taken concurrently with FOSM 2203.

**FOSM 2202 S-C&TC Principles of Quantity Food Production ..... 3 hrs.**

Principles and techniques of quantity food preparation will

be covered. Emphasis will be given to menu planning, use of standardized recipes, and quantity food production techniques. PR: FOSM 2201. To be taken concurrently with FOSM 2204.

**FOSM 2203 S-C&TC Principles of Food Selection & Preparation Lab..... 1 hr.**

Students will apply basic principles of food selection and preparation in a controlled lab setting. Labs will include application of basic food science and food evaluation techniques. PR or CR: FOSM 1121, FOSM 1100 or FOSM 1122. Course must be taken with FOSM 2201. Majors only.

**FOSM 2204 S-C&TC Principles of Quantity Food Production Lab ..... 1 hr.**

Students will apply principles and methods of quantity food production using institutional equipment and evaluate food with consideration given to quality control and cost control. PR or CR: FOSM 2203. Must be taken with FOSM 2202. Majors only.

**FOSM 2209 Food Specialties-Garde Manger II ..... 3 hrs.**

This course is the advanced garde mange techniques including aspic pates, sauces, terrines, and garnishes. The manipulation of special tools used in this type of food preparation is stressed. Buffet table arrangement, food display, and organization are studied. PR: FOSM 2203. Majors only.

**FOSM 2210 Culinary Competitions ..... 1-12 hrs.**

Students will produce innovative, competition quality food. Students will use advanced culinary techniques to showcase their creations for constructive critique. Students should expect to practice on their own a minimum of two hours for every one hour in class. PR or CR: FOSM 2203. Majors only.

**FOSM 2220 S-C&TC Diet Therapy ..... 3 hrs.**

This course discusses the nutritional needs of different age groups, the special nutritional requirements in various diseases and the planning of menus to meet these various nutritional needs. PR: FOSM 1110.

**FOSM 2224 Purchasing and Receiving ..... 3 hrs.**

Includes factors to consider in selecting, purchasing, receiving, and storing various foods. Emphasis is given to the development of purchasing policies, procedures, inventory control and storage. Computer application is included in the course.

**FOSM 2225 Resort & Hotel Management..... 3 hrs.**

Students will study four primary areas of the resort and hotel lodging businesses; service and guest services, housekeeping, catering and banquets, and front desk operations. Students will focus on the revenue and cost centers associated with hotel industry. Emphasis will also be placed on management of rooms, food and beverage, marketing, engineering, accounting, human resources, and security.

**FOSM 2227 Food and Beverage Merchandising ..... 3 hrs.**

This course discusses catering for different types of social functions, dining room arrangement, and service to gain customer satisfaction. It also deals with purchase specifications, management and quality as applied to tableware, furnishing, equipment, and supplies.

**FOSM 2228 Food Service Organization and Management ..... 3 hrs.**

The students will analyze the organization and management of various types of food service programs. Special emphasis is placed on personnel, operating systems, budgeting, purchasing, work schedules, and supervision.

**FOSM 2230 Advanced Baking ..... 3 hrs.**

Students will develop skills in advanced baking techniques, bread making, pastries, and cake decorating. The class will also include information on the corollary business aspects, such as calculating size and determining costs. PR or CR: FOSM 1130. Majors only.

**FOSM 2232 Pastry & Confections ..... 3 hrs.**

Students will develop skills in advanced decorating techniques and more complex preparations of pastry, confections, and dessert products. Students will also be introduced to candy, pastillage, sugar, and chocolate work. PR: FOSM 1130. Majors only.

**FOSM 2250 Applications in Community & Medical Nutrition ..... 3 hrs.**

This course will provide students with methods and practices necessary to access nutritional needs in client-oriented dietetic systems and community-oriented nutrition programs. Students will apply nutrition knowledge to the following: patient education, screening for nutritional risk, determining nutrient requirements across the lifespan, translating nutritional needs into food and menu choices, calculating body composition, and calculating diets for specific health conditions. PR: FOSM 2220.

**FOSM 2255 Management & Regulation of Child Nutrition Programs in Schools ..... 3 hrs.**

This course will provide knowledge and application practices related to management principles, regulatory requirements, best practices, and current issues related to school nutrition programs. The following aspects of school nutrition program management will be covered: menu planning, procurement, financial management and accountability, food production, record keeping, food safety, training and nutrition education. Management practices will be incorporated throughout the class. PR: Successful completion of a 4-day seminar session provided by the WVDE is required as a prerequisite to enrollment. Seminar sessions will consist of lectures and program applications delivered by state-level coordinators, topical concurrent sessions related to course outcomes, activities and resources. Students will fulfill remaining course requirements through on-site application assignments.

**FOSM 2260 Seminar in Dietary Management ..... 2 hrs.**

This course will focus on the dietary management profession by looking at legal issues, professionalism, certification and licensing, preparation of resume, etc. PR: Special Approval. FOSM majors only.

**FOSM 2289 Guided Experience II ..... VAR 1-4 hrs.**

This course will be an advanced guided experience for community college students to explore topics of interest in their field through research, field experience, presentation, computer applications, lab experience, or other project agreed upon between the student and the supervising faculty and is submitted to the dean in a written contract. Credits earned may be applied as free electives in degree or certificate programs. May be repeated for up to 4 hours. Instructor approval required.

**FOSM 2299 Special Topics ..... 1-12 hrs.**

This course will provide an opportunity for students to further their study of principles and concepts in the field and to apply their knowledge in a variety of applications both in the traditional classroom setting and in work/job related experiences. The class will be an individualized, arranged course, with learning outcomes determined by the instructor in consultation with the student and permission of the school's dean.

**FOSM 2995 Food Service Practicum ..... 2-15 hrs.**

A supervised work experience conducted in an assigned food service operation. Course may be repeated for up to 15 hours of credit based on emphasis area. Capstone course.

**FORENSIC SCIENCE****FORS 2201 Introduction to Forensic Science. .... 4 hrs.**

This activities-based course is designed to engage students in the scientific study of collecting and analyzing physical evidence. Students will be involved in 3 hours of lecture/discussion and a 3 hr lab session each week. Students will experience a variety of comparison science procedures to analyze such things as fingerprints, blood, ink, soils, textiles, glass, drugs, tool marks, and ballistics. The culminating experience will engross students in solving a mock

crime using techniques learned during the course. PR: CHEM 2200, BIOL 1106. Fall semester only.

**FORS 2225 Forensic Microscopy and Spectroscopy. ... 3 hrs.**

This course is an introduction to the microscopy and spectroscopic techniques employed by forensic scientists to analyze trace evidence including hairs, fibers, paint chips, glass fragments, etc. The course will consist of two hours of classroom instruction and two hours of laboratory each week. PR: CHEM 2200 and MATH 1115 or higher. Spring semester of even years.

**FORS 4401 Capstone Seminar in Forensic Science. .... 3 hrs.**

Designed to help students synthesize and apply, in a forensic science context, the approaches, knowledge and skills acquired in criminal justice, biology, chemistry, mathematics and physics courses. The course structure consists of student-driven case studies and discussions from recent literature, student presentations describing internship experiences and an explicit formal introduction to established professional and laboratory practices in forensic sciences, including ethics. PR: INTR 4411.

**FORS 4411 Forensic Science Internship ..... 2 hrs.**

This course provides a practical experience for junior or senior forensic science majors who are planning on careers in forensic science or related fields. The internship program offers the student an opportunity for observation of practitioners at work, as well as involvement in the day-to-day operation of a forensic science agency. Students participate in guided observation and activities and complete a reflection paper and log of the internship hours as well as other course requirements. Students will be engaged for a minimum of 85 hours with the participating agency that has been approved by the Forensic Science Program Coordinator. PR: Junior status or Senior status.

**FRENCH****FREN 1101 S-FSU Elementary French I ..... 3 hrs.**

This introductory course covers pronunciation, oral comprehension and speaking, reading and written drill and composition and elements of grammar. Laboratory.

**FREN 1102 S-FSU Elementary French II ..... 3 hrs.**

Continuation of 1101, completing the basic grammatical principles. PR: FREN 1101.

**FREN 1199 Special Topics in French ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**FREN 2201 S-FSU Intermediate French I ..... 3 hrs.**

A course designed to reinforce and increase knowledge of vocabulary and grammar. The course consists of extensive reading, review of grammar and continued attention to pronunciation and speaking. Engaging reading materials, such as short stories, are emphasized. Laboratory. PR: FREN 1102.

**FREN 2202 S-FSU Intermediate French II ..... 3 hrs.**

The continuation of FREN 2201. PR: 2201.

**FREN 2220 Intermediate Topics in French ..... 3 hrs.**

A diversified study of the daily life and environment of present-day France and French-speaking peoples, placed in relation to the language. Emphasis is on a realistic, practical approach to language use. Work is individualized to fit the language-level and interest of the student.

**FREN 3310 Advanced Topics in French ..... 3 hrs.**

Supervised independent study reflecting the student's needs and interests.

**FREN 3311 French Composition and Conversation I..... 3 hrs.**

This course covers writing, conversation and aural comprehension, with extensive use of audio-visual aids. Emphasis on practical proficiency, grammar, vocabulary building, and phonetics. PR: FREN 2202.

**FREN 3312 French Composition and Conversation II..... 3 hrs.**

Parallel course to FREN 3311, with content emphasizing French civilization and culture. PR: FREN 2202 or equivalent. Note: 3311 and 3312 may be taken in any order.

**FREN 3314 French Civilization and Culture..... 3 hrs.**

A study of France's basic historical development and significant contributions to civilization, its outstanding figures, its geography, traditions, contemporary social patterns, legends, songs, and influence on the United States. The instructional method emphasizes French conversation and extensive use of tapes, slides, and motion pictures. PR: FREN 2202.

**FREN 3321 Contemporary Literature..... 3 hrs.**

This course focuses on outstanding writers of the twentieth century, such as Camus, Ionesco, Proust and Sartre. Emphasis is on reading comprehension. PR: FREN 2202.

**FREN 3326 Media Studies in French..... 3 hrs.**

This upper-level course is taught in French to increase proficiency in language and culture. Students examine main currents in media from the Francophone world, building to develop a comparative study of a particular topic and related ideas expressed through media in different countries. Suitable for French minors and those with previous experience in French. See instructor for questions regarding placement in the course.

**FREN 4411 Advanced French Composition and Conversation..... 3 hrs.***Writing Intensive*

In this course, students will develop writing and conversational skills and aural comprehension on an advanced level, with extensive use of audio-visual aids. Emphasis is on attaining a high level of proficiency in grammar, vocabulary and pronunciation. This should be taken as late as possible in the sequence of courses. PR: ENGL 1102, FREN 3312.

**FREN 4420 Francophone Cultures in the Americas..... 3 hrs.**

Students work to understand the cultural and social context of regions of North and South America and the Caribbean where French is spoken, through a study of creative productions from these regions, such as film, music, and storytelling. This course provides a frame of reference to build meaningful relationships with and within Francophone communities in the Americas. Suitable for students in a wide variety of majors, and for students with no previous French experience. Taught in English.

**FREN 4426 Main Currents of French Literature and Culture ..... 3 hrs.**

A coordinated study of French literature and culture from a thematic and unitary standpoint. The main and unique currents of French contribution to world civilization are distinguished. Texts are taken from the Middle Ages to the Modern period, with selections from all genres. PR: FREN 2202.

**FREN 4431 Methods and Materials in Teaching French ..... 3 hrs.**

Study and practice in teaching French language and literature, grades 5-Adult.

**FREN 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary

goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**GEOGRAPHY****GEOG 1199 Special Topics in Geography ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**GEOG 2210 S-FSU Introduction to Geography ..... 3 hrs.**

An introduction to the physical and cultural elements of geography, with a study of major geographical regions of the world.

**GEOG 3305 Economic Geography..... 3 hrs.**

A geographic study of the production, consumption and exchange of goods by people throughout the world. Consideration is also given to spatial variations and influences of the natural environment and culture.

**GEOG 3315 Urban Geography..... 3 hrs.**

A study of urbanization process, including origin, growth, function, spatial patterns, structure and hierarchical arrangement of urban centers. Students will also examine urban problems, with special references to American cities.

**GEOG 3330 Geography of North America..... 3 hrs.**

A course in regional economic geography, primarily of the United States and Canada, from the standpoint of humanities activities in relation to their natural surroundings and resources.

**GEOLOGY****~ GEOL 1101 S-FSU Physical Geology ..... 4 hrs.**

This course is an introductory study of the materials, structures and forces in the earth. Topics include weathering, hydrology, glaciers, earthquakes, landslides, and volcanoes; students will also examine the physical and chemical processes that contribute to the earth's changing form and shape. Both surface and internal processes are covered, with emphasis on the interaction between these processes, including the theory of plate tectonics. Three hours of lecture and two hours of lab per week. Lab includes field trips.

**~ GEOL 1102 S-FSU Historical Geology..... 4 hrs.**

An introduction to the history of the earth from its origins to the present day. The evolution of the earth's oceans, ocean basins, atmosphere and life forms are also studied. The study of past life and continental position in geologic time is based on the interpretation of fossils, rocks, continental drift and plate tectonics. Three hours of lecture and two hours of lab per week. PR: GEOL 1101.

**GEOL 1103 S-FSU Introduction to Environmental Geology ..... 4 hrs.**

This course explores the application of geologic principles to everyday environmental problems. The three segments of the course cover geological hazards, including landslides and earthquakes; the effects of geology and geochemistry on human health; and effects of human activities such as mining and energy production on Earth and its inhabitants. Three hours of lecture and two hours of lab per week. PR: GEOL 1101.

**GEOL 1199 Special Topics in Geology..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chair. Credits earned will be applicable as free electives in degree and certificate programs.

## GRAPHICS TECHNOLOGY

### GRFX 1111 Imaging I Foundations ..... 3 hrs.

This is an introductory course that presents vector and raster graphics as the two primary formats for developing imagery for visual communication. The course focuses on the use of current industry software to create finished artwork that is suitable for use in professional visual design/communication pieces. Students are expected to work in the computer lab outside of class hours to develop their skills. PR: NONE

### GRFX 1113 Multimedia Concepts ..... 3 hrs.

Basic techniques of computer presentation and multimedia will be covered. Students will use introductory software for the creation of digital animation, motion, and multimedia. Activities include exercises using Microsoft PowerPoint, Apple QuickTime, and still and motion digital video capturing.

### GRFX 1199 Special Topics in Graphic Communications..... 1-12 hrs.

Special topics will be studied, to be determined by the instructor and approved by the school's dean. Credits earned will be applicable as free electives in degree and certificate programs.

### GRFX 1220 Master Document / Design ..... 3 hrs.

Master Document / Design emphasizes visual problem-solving skills and personal productivity concepts using industry standard computer software. Course includes an introduction to computer graphics software using the following Adobe Creative Suite software: InDesign as a "master document," Photoshop, and Illustrator. PR: GRFX 1111

### GRFX 1222 Internet Animation ..... 3 hrs.

This course is an introduction to basic techniques of computer animation and presentation for multimedia and internet and interactive training applications. PR: None.

### GRFX 2121 Graphic Design I Foundations ..... 3 hrs.

This introductory course develops fundamental visual concepts through a series of assignments that include visual analysis and development of two-dimensional media for communicating information. Course includes an introduction to computer graphics software. PR: GRFX 1220

### GRFX 2123 Photography I Foundations ..... 3 hrs.

This is an introductory photography course with an emphasis on digital media. The basic tenants of photographic composition and technical development will be presented and students will be assigned work to demonstrate their use of these techniques. Photography as a multi-media tool to communicate visual meaning applied to print, journalism, and web design will be explored. PR: NONE

### GRFX 2125 History of Graphic Design ..... 3 hrs.

This course is a broad survey of the history of graphic design to develop a fundamental understanding of the subject through presentation and discussion. Open to graphic design technology majors and permission of instructor. PR: NONE

### GRFX 2220 Information Graphics ..... 3 hrs.

This course is an intermediate course that develops a systematic approach to translating raw data into clearly understandable information. Typographic and/or visual elements such as icons will be organized structurally for the viewer to "read" the information with the intended visual meaning. The typographic organization of diagrams, charts and graphs are used to translate data into images with understandable visual meaning. Open to graphic design major students only. PR: GRFX 1111

### GRFX 2222 Typography I Foundations ..... 3 hrs.

Typography, as a broad study, has been defined as "the art of printing from moveable type, including the skilled planning of typeface and size, composition, and layout, to make a balanced and attractive whole." This course is an introductory to intermediate course that develops a fundamental understanding of typographic

organization through the exploration of assigned studies and professional applications. PR: GRFX 1220

### GRFX 2299 Special Topics in Graphic Communications ..... 1-12 hrs.

This course will provide an opportunity for students to further their study of principles and concepts in the field and to apply their knowledge in a variety of applications both in the traditional classroom setting and in work/job related experiences. The class will be an individualized, arranged course, with learning outcomes determined by the instructor in consultation with the student and permission of the school's dean.

### GRFX 3131 Motion Graphics I ..... 3 hrs.

This course introduces the fundamentals of motion graphics, including graphics and promos for television networks and film titles and logos for advertising. The focus is on design presentation and development, screen composition, graphic transitions, typography, and content. PR: GRFX 1222

### GRFX 3133 Typography II Branding & Identity Design ..... 3 hrs.

This is an intermediate to advanced course that develops a systematic approach to typographic organization through the exploration of assigned studies and professional applications. A review of historical developments and current applications are included as well as the use of systems in typographic communication. Open to graphic design major students only. PR: GRFX 1222

### GRFX 3230 Interactive and Multimedia Design ..... 3 hrs.

Introduction to multimedia authoring. Students will design and publish interactive content employing a variety of native file formats. PR: GRFX 1222

### GRFX 3232 Photography II Studio & Video Tech ..... 3 hrs.

This is an intermediate to advanced photography course that will include commercial setups of products and portraits, studio lighting in a photo room with professional backdrops, photo-retouching techniques with industry-standard software, and the introduction of video and video-editing capabilities with computer software. PR: GRFX 2123

### GRFX 3234 Multipage Documents and Design ..... 3 hrs.

Through lectures, demonstrations and studio work students develop and implement designs for multipage documents such as annual reports, magazines and view books. The relevance of typography to multipage documents will also be explored. PR: GRFX 2222

### GRFX 4141 Graphic Design Senior Seminar ..... 3 hrs. *Writing Intensive*

This course revolves around an examination of current topics in graphic design with conceptual and theoretical approaches for analyzing visual communication. Emphasis is placed on critical reading, research and writing in a seminar atmosphere. Open to Graphic Design majors only. PR: ENGL 1102

### GRFX 4143 Motion Graphics II ..... 3 hrs.

An intermediate to advanced course in graphic motion that includes investigation of technology applications for current topics. Assignments are to be based on current graphic design topics in fields such as education, entertainment, science, or sports. PR: GRFX 3131

### GRFX 4145 Exhibition Design & Development / Senior Show ..... 3 hrs.

This course requires students to create a presentation suitable for installation at a museum venue. This may necessitate additional production processes and software dependent on the students' selection of presentation. Installations may include: interactive experiences, exhibitions, and e-learning. Students must mount a senior show. PR: GRFX 3230

**GRFX 4240 Graphic Design. Applied Theory ..... 3 hrs.**

This course is a visual communications concept and production course based on the individualized research results from GRFX 4141 Graphic Design Senior Seminar. Emphasis is placed on appropriate selection of media, development of written and visual content, selection (with or without manipulation) or original creation of imagery, use of appropriate typographic approach, thoughts on intended audience and possible venue for the final product. PR: GRFX 4141

**GRFX 4242 Career & Portfolio Development ..... 3 hrs.**

This course assists students with preparation and documentation of their work for assembling physical and digital portfolios. Emphasis will be placed on organizational and presentation skills in writing and designing their verbal and visual information into a cohesive portfolio. PR: GRFX 3230

**GRFX 4244 Senior Internship ..... 3 hrs.**

This required course for the graphic design major is intended to afford each student the opportunity to gain practical work experience in the field. Each student needs to secure a working "contract" with a "client/sponsor" that will provide graphic design-related business activities. The client/sponsor should have a work environment that is suitable for a student to learn and contribute to his/her educational enrichment. PR: Instructor Approval, and GRFX 3230, and GRFX 4143

**GRFX 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**HEALTH CAREERS****HLCA 1100 S-C&TC Medical Terminology ..... 3 hrs.**

This course is a study of the structure of medical words and terms. Emphasis is placed on spelling and defining commonly used prefixes, suffixes, root words, and their combining forms. Anatomy and physiology terms as they relate to the root words, combining forms, prefixes, and suffixes are stressed. Terminology and medical abbreviations relating to several allied health occupations acquaints students with an overview of the medical language. This course is offered as an online course as well as the traditional classroom.

**HLCA 1170 Human Anatomy and Physiology ..... 3 hrs.**

A single semester examination of the architecture and function of cells, tissues, organs, and organ systems of the human being. This examination will include an intensive and detailed study of the integumentary, skeletal, muscular, cardiovascular, lymphatic, digestive, respiratory, urinary, nervous, reproductive, and endocrine systems as well as their interactions with each other. Three hours lecture per week.

**HLCA 1171 Human Anatomy and Physiology Laboratory ..... 1 hr.**

Complementary to HLCA 1170, the laboratory focuses on the anatomical study of the human form, including microscopic examination of cells and tissues, and gross examination of organs and organ systems (skeleton, muscles, blood vessels, nerves, and internal organs). Physiological exercises are also included, such as real-time examination of electrocardiograms, heart sounds, peripheral circulation, blood pressure, reflexes, electromyograms, electroencephalograms, lung volume, and breathing patterns, to supplement the material covered in HLCA 1170. Prerequisite or co-requisite: HLCA 1170.

**HEALTH EDUCATION****HLTA 1100 S-FSU Personal Health ..... 2 hrs.**

This course examines the meaning and significance of the physical, mental, social and environmental factors of health and safety as related to the individual and to society. Students will focus on important phases of related national problems, with an emphasis on college students and their current needs.

**HLTA 1110 Nutrition ..... 3 hrs.**

This course is a study of the nutrients, their sources, and their relationship to body functions. Each stage of the life cycle will be studied as it relates to changing nutritional requirements for individuals and family groups of varying cultural and economic levels. Students will evaluate their daily nutritional intake against recommended daily allowances.

**HLTA 1150 S-FSU Introduction to Health Education ..... 3 hrs.**

This course provides an in-depth study of the varied content areas relating to health, contemporary health problems and reciprocal relationships involving man, disease and the environment focusing on developing the future health professional's ability to meaningfully convey it. Students will explore the significance of the physical, intellectual, social, emotional, spiritual, and environmental domains of health.

**HLTA 1199 Special Topics in Health ..... 1-12 hrs.**

Special topics will be studied, to be determined by the instructor and approved by the School's chairman. Credits earned will be applicable as free electives in degree and certificate programs.

**HLTA 2202 Environmental Health ..... 3 hrs.**

This focuses on current environmental health issues such as population dynamics and interventions designed to modify the environment in order to improve human health in schools and communities as well as the impact of humans on their environment. An examination of the ramifications of decisions regarding management of environmental resources (i.e. air, water, forests, etc.), their impact on quality of life and the role of organizations/governmental agencies involved with pollution control will be undertaken.

**HLTA 2203 Contemporary and Drug Behavior Issues ..... 3 hrs.**

*Writing Intensive.*

This course covers the identification, analysis, and evaluation of the most critical health problems confronting our society, including drug abuse and addiction. PR: ENGL 1108 with a letter grade of C or better.

**HLTA 2210 Disease Etiology ..... 3 hrs.**

This course is designed to provide students with content knowledge about the social and behavioral causes of disease and relationships to health. Disease types, diagnosis, methods of transmission, prevention, and treatment will be introduced. PR: HLTA 1150

**HLTA 3310 School Health Content, Curricula & Programming ..... 3 hrs.**

This course facilitates development of health education lesson building skills based on sound curricular design, contemporary needs and issues. Health education's diverse pedagogical content areas will be investigated; instructional strategies will be rehearsed. Development and expansion of students' professional health education teaching philosophy will include the impact of Coordinated School Health Program implementation in the school setting. PR: HLTA 2202, HLTA 2210, and Admission to Teacher Education.

**HLTA 3315 Healthy Sexuality ..... 3 hrs.**

This course is designed to help students examine the many facets of human sexuality including the design and physiology of the human reproductive systems and the biological and emotional motivations associated with the sexual aspects of life. Learning opportunities

will require students to consider the sociological factors involved in defining and adopting sex-roles, their relationship and impact on marriage and family planning, and trends, issues, and content necessary to effectively evaluate and utilize sexuality education methods and materials. PR: HLTA 1150, sophomore standing or instructor approval.

**HLTA 3320 Behavior Change Theory ..... 3 hrs.**

Students in this course will examine theories, models, and constructs related to personal, environmental, and population-based health risk and health enhancing behaviors. PR: HLTA 2210.

**HLTA 3325 Instructional Strategies and Planning in School Health ..... 3 hrs.**

This course is designed to cultivate the student's abilities to develop, plan and evaluate existing curricula, and to organize and plan an effective health education program based on the eight component Coordinated School Health Programming model. Emphasis is placed on the development of Pre K-Adult curriculum and the design of outcomes-based, developmentally appropriate instructional units. PR: HLTA 3310.

**HLTA 3330 Introduction to Epidemiology & Biostatistics ..... 3 hrs.**

This course is designed to introduce students to disease patterns in human populations. Basic statistical and data collection methods in health research will be identified. PR: HLTA 2210

**HLTA 3345 Community Needs Assessment ..... 3 hrs.**

Students will assess needs, assets, and capacity for health education in a community or public health setting. PR: HLTA 2210

**HLTA 3350 Health Promotion & Program Planning.... 3 hrs.**

Students will understand how health promotion enables people to maintain or improve health by: involving stakeholders, developing goals and objectives, designing strategies or interventions, creating an appropriate scope and sequence, and analyzing implementation factors. PR: HLTA 3345

**HLTA 3355 Readings in Health Education ..... 2 hrs.**

This course introduces the student to literature on current School Health research, issues, strategies, and problems in the K-12 public school setting. During this course, students will investigate, discuss and synthesize findings from current research useful in developing ideas for their culminating "action research" project. PR: HLTA 2202, HLTA 2210, and Admission to Teacher Education

**HLTA 3360 Communication Techniques for Health Promotion..... 2 hrs.**

This course will prepare students to communicate and advocate for school and community health education by analyzing informational needs and available resources using a variety of communication tools and techniques. PR: HLTA 2210

**HLTA 3390 Certified Health Education Specialist (CHES) Preparation..... 2 hrs.**

This course serves as a review for the Certified Health Education Specialist (CHES) examination. Students will participate in class discussions, reflect on assigned readings, and take practice exams to access knowledge of the Areas of Responsibility for Health Educators and application of the Seven Areas of Responsibility for Health Education Specialist. Co-requisite or Pre-requisite HLTA 3350.

**HLTA 4400 Health Education in the Elementary School..... 3 hrs.**

This course is designed for senior education majors completing teaching specializations in Elementary Education or School Health Education. It focuses on specific health content areas and complementary teaching strategies related to the health and developmental needs of elementary school children. PR: EDUC 2260.

**HLTA 4410 Seminar in Public Health Education..... 3 hrs.**

A presentation of the historical and philosophical development of public health agencies, including governmental aspects, legal

bases, organizational principles, personnel factors and public relations. Periodic field trips are included during the second half of the semester. Fall only.

**HLTA 4431 Methods & Materials in School Health Instruction ..... 3 hrs.**

This course is designed for senior education majors completing a teaching specialization in School Health Education. It focuses on the application of instructional strategies, classroom management techniques, and performance-based assessment across different developmental levels in the public school setting. Students are encouraged to examine teaching scenarios, foresee potential stumbling blocks and problem-solve in a variety of ways. Practical experience in the public school setting is required. PR: HLTA 3310, HLTA 3325, and Admission to Teacher Education.

**HLTA 4440 Health Research and Measurement Design ..... 3 hrs.**

Principles of research and measurement including research ethics, instrument construction, designing a study and an examination of concepts and strategies involved with health education assessment. PR: HLTA 3320

**HLTA 4445 Health Research Implementation..... 3 hrs.**

Students learn concepts of project management, data collection, analysis methods, and designs used in health promotion programs. PR: HLTA 4440

**HLTA 4446 Funding & Administration of Health Promotion Programs..... 3 hrs.**

Students will receive an introduction to securing and managing a health promotion grant. Students will practice writing a grant proposal and other administrative activities. Pre-requisite: senior standing, ENGL 1102 or higher, and MATH 1107 or higher.

**HLTA 4451 FSU Field Practicum in Community Health ..... 3 hrs.**

This course is a semester-long experience working directly with a community agency during the student's last semester. Specific goals should meet the needs of the agency in collaboration with the student and the University coordinator. Expectations include: implementing, administering, or managing a health education project, and/or serving as a health education resource person. PR: HLTA 3345. Required.

**HLTA 4452 FSU Field Practicum in Community Health Portfolio ..... 1 hr.**

This course is taken concurrently with HLTA4451 and consists of developing a portfolio which showcases the students' best work during the Field Practicum. The portfolio will be aligned with National Commission for Health Education Credentialing Areas of Responsibility. PR: HLTA 3345. Required.

**HLTA 4998 Undergraduate Research.....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## HISTORY

**~ HIST 1107 S-FSU United States History I ..... 3 hrs.**

Examines the major developments in American history, from pre-Columbian native American cultures to the end of the Civil War, with emphasis on the Colonial, Revolutionary, Early Republic and Civil War eras.

~ HIST 1108 S-FSU United States History II ..... 3 hrs.

Examines the major developments in American history, from Reconstruction to the present with emphasis on the political, social, cultural, economic and diplomatic forces that contributed to America's emergence as the world's leading industrial democracy.

~ HIST 2211 S-FSU World Civilizations I ..... 3 hrs.

An intermediate-level survey of worldwide historical developments, emphasizing major civilizations in pre-historic times, ancient empires and the early Middle Ages. Recommended for sophomores and well-prepared freshmen.

~ HIST 2212 S-FSU World Civilizations II ..... 3 hrs.

An intermediate-level survey of worldwide historical developments, emphasizing major civilizations from the Middle Ages to the social, political, and industrial revolutions of the eighteenth century. Recommended for sophomores and well-prepared freshmen.

~ HIST 2213 S-FSU World Civilizations III ..... 3 hrs.

An intermediate-level survey of worldwide historical developments from the French Revolution of 1789 to the present era, emphasizing major civilizations and the modern growth of global interdependence. Recommended for sophomores and well-prepared freshmen.

HIST 2250 The Historian's Craft ..... 3 hrs.  
*Writing Intensive*

The Historian's Craft is a Writing Intensive course designed to provide history majors with the skills necessary to write effectively and persuasively in the field of history, including familiarization with the Chicago-style of citation. Utilizing a workshop format, the course will introduce students to different styles of historical writing and it will give students the opportunity to practice and hone their skills in identifying and summarizing historical arguments, engaging in critical analysis and review, conducting original historical research, and writing argument-based, research-driven papers. Restricted to History and Social Studies Education majors, or must have instructor's approval to register. PR: ENGL 1102 and sophomore standing.

HIST 3301 History of Intelligence and National Security ..... 3 hrs.

An intermediate-level course on the origins, developmental milestones, important events and policies that shaped the United States' intelligence infrastructure. There will be discussion of national security policy and actions that have been implemented, and analysis of their effectiveness. This course will develop skills in research, editing, writing and presentation. Students will be required to research assigned topics, collect documentation, edit references, write an analysis of a proposed course of action, and support a recommended course of action in an oral briefing with graphic slides. The format of this course is designed to acquaint the student to the time-sensitive and volatile nature of collection, analysis, production and dissemination of intelligence information.

HIST 3302 West Virginia ..... 3 hrs.

This course covers West Virginia history, government and geography from the first settlements to the present time. PR: HIST 1107, 1108.

HIST 3310 Diplomatic and Military History of the United States ..... 3 hrs.

Addresses the relations between the United States and other countries, and the development of basic American foreign policies from the colonial background to the super-power status of the present day. Students will pay special attention to war and its foreign-policy consequences. PR: HIST 1107, 1108.

HIST 3315 Colonial America ..... 3 hrs.

Covers the American colonies from their beginnings to the end of the Revolutionary War. PR: HIST 1107.

HIST 3316 The Early Republic ..... 3 hrs.

Covers United States history from the Revolutionary War to the close of the Mexican War. PR: HIST 1107.

HIST 3317 Civil War and Reconstruction ..... 3 hrs.

This course examines the myriad causes of the Civil War, the social, economic, and political changes in the North and the South during the war, highlights key battles and campaigns, and explores the complex and difficult reunification and reconstruction of the Union and the defeated Confederacy following the war. PR: HIST 1107.

HIST 3318 The Gilded Age to the Great Crash ..... 3 hrs.

A history of the U.S. from 1877 to the attack on Pearl Harbor. Major topics include the Industrial Revolution, the labor movement, the New South, the Old West and Native Americans, the spoils system, populism, progressivism, World War I and the League of Nations, the Roaring Twenties, the Great Depression, the New Deal and the diplomatic crises of the inter-war years. PR: HIST 1108.

HIST 3319 Recent America Since 1941 ..... 3 hrs.

Examines America's emergence as the leading world power. Topics to be explored will include World War II at home and overseas, the origins, rise and fall of the Cold War, the rise and fall of the liberal consensus, civil rights, feminism, Vietnam War and the anti-war movement and the new conservatism of the post-Nixon years. PR: HIST 1108.

HIST 3333 Women in American History ..... 3 hrs.

Women in American History focuses on the pivotal roles women have played in American history from the pre-colonial era up to the present day. By placing women at the center of American history, the course demonstrates how the experiences of American women have decisively shaped American society, culture, politics, and economics throughout the nation's history in order to offer a more complete and complicated vision of the American past. With particular attention to the ways in which gender roles are historically constructed, students will investigate how women have worked within, and pushed against, various boundaries in order to exercise control over their lives and to gain greater equality in American society. PR: HIST 1107 or 1108.

HIST 3335 Women in World History ..... 3 hrs.

This course examines the history of women around the globe by using a dual lens of gender and women's experiences from the ancient world to the present. Going beyond the fragmentary inclusion of women in world history this course focuses on women's experiences as central. Because women's lives have been defined by socially constructed ideas of gender this course includes an examination of how gender has defined women's experiences. Additional topics include, the roles and contributions of women around themes of family life, political engagement, their role in religion, economic production, education, and sexuality.

HIST 3340 Popular Culture in Modern American History ..... 3 hrs.

With the guiding premise that popular culture illuminates underlying tensions and currents of thought in American society, Popular Culture in Modern American History utilizes revealing examples of commercial entertainments, including film, television, music, radio, sports, comics, and literature in order to analyze key developments in modern American history. Viewing popular culture as a dialogical process between producers and consumers of entertainment, this course focuses on the interactions between marginal, subversive, and mainstream forms of popular culture in order to demonstrate how popular culture has been a democratic medium that has offered openings for cultural representation to marginalized groups in American history. PR: HIST 1107 or 1108.

HIST 3344 African-American History and Culture ..... 3 hrs.

A survey of African-American experience in the United States, from the African cultural background and slavery through the present-day urban experience. PR: HIST 1107 or 1108.

**HIST 3351 History of England ..... 3 hrs.**

This course covers England's history from Roman rule to the present day. PR: HIST 2211 or 2212 or 2213.

**HIST 3352 History of Russia ..... 3 hrs.**

Development of the Russian people from the time of their appearance as a national entity, through the tsarist, imperial, revolutionary and Soviet eras to the present. PR: HIST 2211 or 2212 or 2213.

**HIST 4405 History of Africa ..... 3 hrs.**

This course examines the history of Africa from ancient times to the present analyzing contending ideas about the history of Africa and Africans. Topics covered include the origin of humans, early empires, and religion in Africa. The impact of outside influences from the African Diaspora to Imperialism and the Cold War are an integral part of the course. Additionally, an examination of African art, literature, music, and food provide a balanced picture of the rich history of the African continent and its people. PR: HIST 2211 or 2212 or 2213.

**HIST 4410 History of Asia ..... 3 hrs.**

This survey course examines the history of East Asia including the areas that comprise modern day China, Japan, Korea, Vietnam, and parts of Southeast Asia from antiquity to the present. The course addresses the complex development of early East Asian cultures in relation to each other, as well as how commercial, military, religious, diplomatic and cultural relationships combined with internal processes to influence the development of East Asian societies and their connection to the rest of the world. PR: HIST 2211 or 2212 or 2213.

**HIST 4415 History of the Middle East: Muhammad to the Present ..... 3 hrs.**

History of the Middle East from Muhammad to the Present, surveys political and religious change in the Middle East from the time of Muhammad to the present. The course examines the origins and tenets of Islam, military and political realities of Islamic empires, the structure of families, religious interaction, and Middle Eastern models of just rule. Embedded in these topics are examinations of religious sectarianism, intellectualism, philosophy and spirituality. Additional major topics include relations between the Ottoman Empire and Europeans; World War I and the peace settlement which defined states in the Middle East; Western-Middle Eastern perceptions of one another; the historical roots of the Israeli-Palestinian struggle; and the rise of nationalism and religious fundamentalism. The course puts current events in the Middle East in context and considers how the history of the Middle East speaks to what the future may hold for the global community. PR: Sophomore Standing, HIST 2211 or 2212 or 2213.

**HIST 4420 History of Latin America ..... 3 hrs.**

Topics include conquest and colonial developments in South America, from Columbus to Latin America's role in contemporary perspectives. PR: HIST 2212 or 2213.

**HIST 4425 Medieval Europe ..... 3 hrs.**

This course covers change and continuity in Medieval Europe from the fall of Rome in the 5th century to the Renaissance of the early 16th century. PR: HIST 2211 or 2212.

**HIST 4429 Early Modern Europe ..... 3 hrs.**

Early Modern Europe will cover the history of Europe from 1500 to 1789, stretching from the Protestant Reformation to the beginning of the French Revolution. PR: HIST 2212.

**HIST 4430 19th Century Europe ..... 3 hrs.**

This course will trace the history of Europe from the French Revolution in 1789 to the outbreak of the Great War in 1914. PR: HIST 2213.

**HIST 4431 Recent Europe ..... 3 hrs.**

Recent Europe covers the history of Europe from the beginning of World War I in 1914 through to the present. Spring semester only. PR: HIST 2213.

**HIST 4450 History of American Sexualities..... 3 hrs.**

History of American Sexualities provides students with a comprehensive overview of how and why ideas related to sex and sexuality have evolved from the pre-colonial era in America up until the present. In exploring sexuality as a historically contingent sociocultural category of analysis, the course will focus on how ideas about sexuality have been historically linked to ideas about gender, biology, race, and class; how and why modern categories of "homosexuality" and "heterosexuality" came into existence; and, the impact of efforts to reform, regulate, or challenge societal perceptions of sexuality and sexual behavior. PR: HIST 1107 or 1108.

**HIST 4455 Revolutions in History ..... 3 hrs.**

A study of revolutionary thought and action as a force in world history since ancient times. Major topics include the American and French Revolutions of the eighteenth century, the Chinese and Russian Revolutions of the early twentieth century, and a sampling of more recent revolutionary movements in representative regions of the world. PR: HIST 2211 or 2212 or 2213.

**HIST 4475 Philosophy of History ..... 3 hrs.**

A survey of the philosophical systems, both speculative and analytical, that have been advanced to evaluate humanity's historical experience. Credit in either philosophy or history. PR: HIST 2211 or 2212 or 2213 or Philosophy 2200.

**HIST 4498 Senior Seminar ..... 3 hrs.**

An identification, review, and historically-oriented synthesis of major concepts in the fields of geography, history, political science, psychology, sociology and economics. Required of history and Social Studies Comprehensive Education majors, but open to all. PR for history majors: senior standing. Fall semester only.

**HIST 4499 Selected Topics ..... 3 hrs.**

Advanced study of topics specially selected by members of the history faculty according to student demand. PR: Sophomore Standing and one (1) of the following courses: HIST 1107, 1108, 2211, 2212, or 2213.

**HIST 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## HONORS

**HONR 1100 Honors Seminar ..... 1 hr.**

This seminar introduces students to critical thinking in a number of disciplines and initiates them into the standards required by the Honors Program.

**HONR 3301 Honors Study/Travel ..... 3 hrs.**

The Honors study-travel course offers students the study of one of the world's great cities with a week-long immersion in that city. Topics vary by instructor, but the course aims to show students the interconnections of art, language, literature, theatre, history, geography, geology, music, and economics that have contributed to the life and culture of the city. In class, students study the history, culture, and mass transit system of city. In city, they see plays and concerts, visit museums and historic sites, and learn to navigate their way through the city. The course helps students to see the influence of the past on the present and the evolving future. It seeks to develop in them skills they will need in order to explore first-hand cultures and civilizations outside their own. It encourages teamwork among those taking the course as they explore the city.

## HUMAN SERVICES

### HUSV 1100 S-FSU Freshman Seminar..... 3 hrs.

This course is designed to acquaint entering freshmen with various academic, economic, and social aspects of college life and to teach students the skills necessary to succeed in college. In addition, this course would focus on building genuine relationships with people on campus by providing opportunities to engage in various college activities and to work with a Freshman Seminar facilitator, peer leaders and mentors.

### HUSV 1103 S-FSU Community Service Learning..... 1 hr.

Community Service Learning provides opportunities for students to perform meaningful service to the community while engaging in conscious reflection and critical analysis activities which meet service learning objectives. Students are required to complete a minimum of 20 hours of quality service for a non-profit agency. The hours are completed over the course of the semester with credit given for 2 hours a week. The course is based upon an experiential learning format which includes the college, the student, and the community.

Students may enroll in Community Service Learning three semesters, completing a total of 3 credit hours toward graduation requirements. Three sections of Community Service Learning are offered. Enrollment in the general section does not require instructor permission; however, enrollment in the honor's section and the America Counts' sections do require instructor permission.

### HUSV 1199 S-FSU Special Topics in Human Services ..... 1-12 hrs.

Students in special selected topics. The topic to be studied will be determined by the instructor and approved by the School's chairman. Credits earned will be applicable as free electives in degree and certificate programs.

## INTERDISCIPLINARY STUDIES

### ~ INTR 1120 S-FSU Experiencing the Arts ..... 3 hrs.

Introduction to appreciation of the arts through lectures/demonstrations by teachers in the visual arts, music and theatre. Organized thematically, the course offers an opportunity to explore relationships between various artistic media, as well as their relationships with other disciplines. The course will also consider the circumstances which have shaped these relationships and the ways in which contemporary culture conditions how we respond to and interpret art and performance today.

### INTR 1150 S-FSU Women's Studies Colloquium. 1-3 hrs.

The Women's Studies Colloquium introduces students to issues and concerns surrounding women and women's studies through talks by invited experts on a broad range of topics. Repeatable for credit.

### INTR 2200 S-C&TC Race, Class and Gender in Popular Culture ..... 3 hrs.

This course examines the role and function of consumer and leisure life in the construction, interaction, and management of race, class, and gender identities within the United States. By identifying and analyzing how race, class, and gender positions inscribe and inform the values, ideas, and beliefs embodied by pop cultural productions and their consumption, students will learn to recognize and critique the politicized features that impact such everyday phenomena as TV shows, films, commercials, videogames, music videos, sports spectacles, magazine advertisements, fashion, toys, and the Internet. This course, therefore, will enable students to understand with greater clarity why we make the choices we do when acting as consumers of popular culture and how these choices reflect the race, class, and gender identities and values we knowingly or unknowingly ascribe to ourselves and others. PR: ENGL 1101 (with a grade of a "C" or better).

### INTR 2201 S-FSU Introduction to Women's Studies ..... 3 hrs.

This interdisciplinary course focuses on a variety of topics in women's studies, such as gender and science, the body, reproductive technologies, public policy and feminist theory. Class discussions will examine positions among feminist ethicists on the implications of gender definition and explore the construction of gender in our society.

### INTR 2280 S-C&TC Empowering Leadership ..... 3 hrs.

The purpose of this course is to help prepare students to assume increasingly responsible leadership roles of empowerment in their personal, professional and academic lives. This interdisciplinary, student-centered course focuses not only on significant theories of empowering leadership and their applicability to leaders of the past and present, but also includes substantial hands-on, experiential learning opportunities in which students practice empowering leadership. PR: ENGL 1101 (with a grade of a "C" or better).

### INTR 2281 S-C&TC Great Ideas of Leaders ..... 3 hrs.

This interdisciplinary humanities course explores some of the most significant ideas of leaders and the questions they have posed to humankind. Topics include the intersection of leadership with the heroic myth, the nature of government, justice, wealth, culture, the mind, poetics, ethics, good and evil, power and authority, concepts of nature, issues of faith and values-based leadership. PR: INTR 2280.

### INTR 2995 S-C&TC Interdisciplinary Practicum ..... 3 hrs.

This course will provide opportunities to observe and interact in appropriate work environments at specific sites in each of the core disciplines: Aviation, Criminal Justice, EMS, and Safety. Sites to be included will be chosen by the program coordinators of the various disciplines, and may vary from time to time. PR: Major in Homeland Security or Pre-Homeland Security. Required core class for the Homeland Security Degree Program. Capstone course.

### INTR 4402 Capstone Seminar in Women's Studies..... 3 hrs.

Students minoring in Women's Studies will design and execute their own research project on women's studies topics of personal interest. PR: INTR 2201. Instructor Approval

### INTR 4998 Undergraduate Research ..... 0-6 hrs.

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## ITALIAN

### ITAL 1101 Elementary Italian I ..... 3 hrs.

Italian I is designed for students who have no previous instruction in Italian. The course focuses on enabling students to communicate effectively in Italian and to develop an appreciation of the Italian culture.

### ITAL 1102 Elementary Italian II ..... 3 hrs.

Italian II is a continuation of Italian I, completing the basic grammatical principles of that language and concentrating on enabling students to speak in formal and informal contexts.

### ITAL 1199 Special Topics in Italian ..... 1-12 hrs.

Studies in special selected topics, to be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**ITAL 2201 Intermediate Italian I..... 3 hrs.**

This course focuses on enabling students to communicate effectively in Italian, by consolidating and expanding the vocabulary and grammar they learned in Italian 1101 and 1102, as well as introducing more sophisticated grammatical structures. The course emphasizes language as a means of understanding culture in the increasingly global world. The course also seeks a heightened understanding of everyday Italian life. The course will be taught in Italian. PR: ITAL 1102.

**ITAL 2202 Intermediate Italian II ..... 3 hrs.**

This course is a continuation of Italian 2201. Students actively use language and conversational skills acquired in 2201 as they examine Italian housing, environment, music, theater, art, and literature. The course will be taught in Italian. PR: ITAL 2201.

**ITAL 2299 Special Topics in Italian ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**ITAL 3399 Special Topics in Italian ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

## JOURNALISM

**JOUR 1199 Special Topics in Journalism..... 1-3 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs. PR: ENGL 1102.

**JOUR 2245 Reporting and Multimedia News Writing 3 hrs.**

This course teaches students the basics of news reporting and writing for a variety of media forms. Students will review basic grammar, learn AP Style, and learn how to apply them to news writing for media from print, broadcasting, and online forums. PR: ENGL 1102.

**JOUR 2275 Media Literacy ..... 3 hrs.**

*Writing Intensive*

This course teaches students not only the historical background of media, but to critically analyze media content and how it affects society as a whole. Issues addressed are media conglomeration and deregulation, media bias, stereotypes in the media, media as it relates to democracy, as well as other major concepts in the field. PR: ENGL 1102.

**JOUR 2280 History of American Journalism ..... 3 hrs.**

*Writing Intensive*

This course offers a comprehensive chronological presentation of the development of American mass media, by showing the relationship of the past to the events of today and delineating their impact on the American way of life. Examines the American press from the seventeenth century to date and freedom of press and its present implications. PR: ENGL 1102.

**JOUR 3315 Multimedia Publishing..... 3 hrs.**

This course will teach students the basics of digital media design. It will familiarize students with a variety of software related to print design, photography, logo design, and web design. Terminology related to all forms of media will be addressed. PR: ENGL 1102.

**JOUR 3330 Writing for Multimedia ..... 3 hrs.**

This course provides students the skills to write in a variety of media formats as well as to create other multi-media projects. In addition to writing for websites, students will learn to embed video, audio, animation, and other platforms as their stories are published. PR: JOUR 2245.

**JOUR 3335 Photojournalism and Digital Imaging..... 3 hrs.**

Students will not only be taught the basics of photography, but will also learn the ethical conflicts and often the dangers facing photojournalists. Since film is no longer used, students also learn how to upload and manipulate photos digitally.

**JOUR 3343 Journalism Internship..... 3 hrs.**

This is the capstone course of the journalism. In this course, students are required to perform on-the-job duties during a 100-hour internship, gaining experience in a particular area of journalism, in accordance with the stated goals of the journalism program. Assessment of student achievement of these goals will occur through both a submitted portfolio and the employer's report on the quality of the intern's work. Seniors only. Repeatable. Instructor approval required.

**JOUR 3344 Publications Practice ..... 1-3 hrs.**

This course provides experience with student publications. Students can work on the student newspaper, the yearbook, or the student literary and art journal.

**JOUR 3350 Participatory Journalism and Social Media 3 hrs.**

This course develops students' abilities to report stories in a professional journalistic manner for use on the electronic media sites, including social media, blogs, and new mobile media applications. Students will learn to incorporate user-generated content (UGC).

**JOUR 3390 Multimedia Ethics and Law ..... 3 hrs.**

This course provides a comprehensive overview of legal and ethical issues pertaining specifically to journalism and media. In addition to case studies, students will be asked to critically analyze "real-world" dilemmas using legal and philosophical concepts.

## TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL)

**LANG 3300 Intercultural Communication ..... 3 hrs.**

This course examines the meaning, significance and impact of intercultural communication as it applies individually, nationally and globally as well as in groups and organizations. The course will explore the meaning of "culture" and its effects on perception and understanding. Both macro and micro cultural differences will be examined and the dangers of cultural misunderstanding will be explored. The course will also examine the ever-growing need for intercultural communication competence and introduce ways to increase that competence. Also listed as COMM 3300. PR: COMM 2200 or 2201 or 2202.

**LANG 3301 Theories of Language and their Application to English I..... 3 hrs.**

This course covers the linguistic subjects of syntax, morphology, phonology, semantics and pragmatics, which provide concepts and techniques for understanding languages, with special emphasis upon English. Topics will include descriptive versus prescriptive grammar, dialect and register, synchronic and diachronic language variation, the history of English, language acquisition, the leading theories of language, language theory and the art of composition. Required of all prospective teachers of English; to be taken before Clinic III. Also listed as ENGL 3301. PR: ENGL 1102.

**LANG 3302 Theories of Language and their Application to English II..... 3 hrs.**

Continuation of ENGL 3301, emphasizing practical applications to teaching writing and grammar in grades 5-12. Required of all prospective teachers of English; to be taken before Clinic III. Also listed as ENGL 3302. PR: ENGL 3301.

**LANG 4431 Teaching English to Speakers of Other Languages..... 3 hrs.**

The study and practice in teaching the English language to non-native speakers, grades 5-Adult. Also listed as FREN 4431 and SPAN 4431. PR: FREN 2202 or SPAN 2202 or ITAL 2202 and LANG 3300 and 3302.

**LANG 4432 Teaching English to Speakers of Other Languages Practicum ..... 3 hrs.**

Student will prepare lessons and teach English to speakers of other languages under the supervision of college personnel for a minimum of 60 hours. Emphasis will be on speaking, reading, writing, and listening skills. PR: LANG 4431.

**MANAGEMENT****MGMT 3308 Human Resource Management..... 3 hrs.**

A study of the field of personnel management and industrial relations, including its background, development and modern practices. PR: BSBA 2209.

**MGMT 3350 Small Business Management ..... 3 hrs.**

This course is an integrated course designed to familiarize students with small business dynamics involving accounting, finance, marketing, and management disciplines. Students analyze personal strengths and weaknesses relative to launching an entrepreneurial career. Attention is given to planning, financing, starting, and managing a new business. Students will be required to develop and present a business plan for a new venture either individually or as a member of a team. PR: BSBA 2204; BSBA 2209; BSBA 2221.

**MGMT 3370 Compensation and Benefits ..... 3 hrs.**

A comprehensive exploration of all forms of employee compensation management and benefit plans, including the various types of benefits and compensation devices found in the business, labor, government and academic communities. Focus areas include pay structures, internal and external pay equity, compensation packages and designing and planning well-conceived, efficient employee benefits. PR: MGMT 3308.

**MGMT 3371 Employee Relations..... 3 hrs.**

This course examines the dynamics of employee-management relations, with emphasis on unions. Emphasis on methods of reducing employee-management conflict, understanding the grievance process and the role of arbitration and the role of government in the employee-relations process. PR: MGMT 3308.

**MGMT 3372 Human Resource Selection and Evaluation..... 3 hrs.**

An in-depth study of legal, methodological, and substantive issues related to selection and performance appraisal of employees. Focus areas include concepts of job analysis, validation, test development and administration, adverse impact analysis and affirmative action. PR: MGMT 3308.

**MGMT 3500 Project Management ..... 3 hrs.**

This course provides an introduction to formal project management concepts and techniques. Students will learn the Project Management process areas and Knowledge Management areas as published by the Project Management Institute (PMI) within the Project Management Body of Knowledge (PMBOK). The project outputs and required documentation for each process area are emphasized. The project management concepts and techniques presented in the course will be applied to manage a project within a business context. (Pre-requisite: BSBA 2209 Principles of Management)

**MGMT 3390 Organizational Behavior..... 3 hrs.**

The purpose of this course is to introduce the student to the problems of human behavior in the organizational setting and the approaches available for solving these problems. Students will examine theories of individual, interpersonal and group behavior in organizations, and will follow this with considerations of how organizations may be designed to utilize the talents of the individuals, and how managers may make use of the theories of motivation, communication and interaction in accomplishing the objectives of the organization. PR: BSBA 2209, BISM 2800.

**MGMT 4400 Organizational Theory and Design ..... 3 hrs.**

This course is designed to provide students with an awareness of how organizations are designed and structured. Emphasis is placed on structural characteristics of organizations, how to shape those characteristics and understanding their influences on the organization. PR: BSBA 2209.

**MGMT 4402 Organizational Change and Development..... 3 hrs.**

The course uses an experiential learning approach that provides potential and practicing managers with behavioral science intervention theory and methods for improving organizational performance. The students' work will focus on planned change of organizational cultures and processes such as communication, team building, roles, conflict and structure, with the aim of enhancing management behavior, human resources and productivity. PR: MGMT 3308, MGMT 3390.

**MGMT 4405 Operations Management ..... 3 hrs.**

This course introduces students to various elements in the field of operations management. It covers the most common production and operations concepts encountered in modern production systems. Students will learn certain quantitative and statistical techniques that help evaluate the management of the firm's operations and performance. PR: BSBA 3310, BSBA 2209.

**MGMT 4998 Undergraduate Research..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**MANUFACTURING ENGINEERING TECHNOLOGY****MANF 1100 Materials and Processes ..... 3 hrs.**

This course covers the scientific concepts underlying the basic, procurement, process, fabrication and finishing industries while studying the physical and chemical properties of the organic and inorganic materials utilized in today's industrial complex.

**MANF 1199 Special Topics in Manufacturing Engineering Technology ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**MANF 2205 Engineering Economy ..... 3 hrs.**

Techniques of engineering economy as related to cost, design and selection of materials. PR: MATH 1102.

**MANF 2250 Total Quality & SPC ..... 3 hrs.**

The purpose of this course is to introduce students to concepts related to total quality management and statistical process control. Topics include the total quality concept, the contributions of W. Edwards Deming, quality and competitiveness, establishing a customer focus, leadership and teamwork, decision-making and problem solving, foundations of statistical process control and continuous improvement.

## MARKETING

### MKTG 3305 Supply Chain Management ..... 3 hrs.

The purpose of this course is to help students understand specific issues involved in distribution and logistics management. Systematic approaches to the formulation of distribution and logistical strategies will be discussed. PR: BSBA 2204.

### MKTG 3310 Consumer Behavior ..... 3 hrs.

A study of the activities, behaviors and processes exhibited by consumers, directly involving the selection, procurement, consumption and disposition of products and services. PR: BSBA 2204.

### MKTG 3320 Advertising and Sales Promotion ..... 3 hrs.

This is a survey course of social, psychological and some technical aspects of advertising and sales promotion for both business and journalism students. PR: BSBA 2204.

### MKTG 3340 Marketing Research ..... 3 hrs.

This course is designed to introduce students to the nature and scope of market research and its role in designing and implementing successful market programs. Among the topics covered are the market research process, research design, data collection and analysis. Basic and advanced statistics techniques will be discussed in detail, with emphasis on explaining the procedures, interpreting the results and uncovering the managerial implications. PR: BSBA 3310, BSBA 2204.

### MKTG 3399 Special Topics in Marketing ..... 1-6 hrs.

This is an advanced studies course in special select marketing topics, to be determined by the instructor and approved by the Dean. PR: 12 credit hours in Marketing.

### MKTG 3400 Selling and Sales Management ..... 3 hrs.

This course is a study of techniques appropriate to personal selling and managing salespeople, both retail and contract. Students are given opportunities to construct and give presentations. PR: BSBA 2204, COMM 2202.

### MKTG 3500 New Product Decisions ..... 3 hrs.

This course is designed to introduce students to the issues, strategies, and approaches related to developing, evaluating, and introducing new products (goods and services). Among the topics covered are; identifying and evaluating market opportunities, assessing the values of products to potential customers, forecasting market demand, and preparing new product launch strategies and plans. PR: BSBA 2204.

### MKTG 4450 Marketing Management ..... 3 hrs.

This course is designed to provide a more in-depth study of marketing theory and processes. Emphasis will be placed on the analysis and decision-making processes required of marketing managers. PR: MKTG 3310, MKTG 3320, MKTG 3340.

### MKTG 4998 Undergraduate Research ..... 0-6 hrs.

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## MATH

### MATH 1199 Special Topics in Mathematics ..... 1-12 hrs.

Studies in special selected topics, to be determined by the instructor and approved by the department chair. Credits earned will be applicable as free electives in degree and certificate programs.

### MATH 1400 Foundations of Algebra ..... 4 hrs.

This course is designed to provide a solid algebraic framework for students. This course covers Pre-Algebra, Elementary Algebra, & Intermediate Algebra. This course is designed for students who need MATH 1430: College Algebra with Support or MATH 1510: Applied Technical Math I, but do not have the minimum required MATH ACT score of 19 or equivalent. Students will complete Elementary Algebra concepts in the first portion of the term and then proceed into additional pre-requisite material for College Algebra in the remainder of the semester. Review of foundational concepts will occur to reinforce student learning as deemed appropriate by the instructor. Class work will include mini lectures, computer-assisted work, group activities, and use of math manipulatives to reinforce concepts and engage active student learning. This course meets for 5 hours each week. NOTE: This course does not provide general education credit; however, upon successful completion of this course, students are eligible for MATH 1430: College Algebra with Support or MATH 1510: Applied Technical Math I. PR: Admission to FSU. There are no minimum test score requirements for this course.

### MATH 1407 Fundamental Concepts of Mathematics with Support ..... 4 hrs.

This course fulfills the same requirements as MATH 1507: Fundamental Concepts of Mathematics and is intended for students who do not meet the pre-requisites for MATH 1507. The course will cover all content included in MATH 1507, as well as provide integrated academic support. This introductory survey course is specifically designed to fulfill General Studies requirements for quantitative literacy. It is designed to strengthen computational skills while focusing on real-world problems. Topics may include critical thinking skills, sequences, set theory, logic, probability, statistics, and consumer mathematics. The course will also review pre-requisite topics, such as order of operations, exponents, and linear equations, as deemed necessary. In addition to lecture and discussion, this course will utilize computer-assisted work, group activities, and math manipulatives to reinforce concepts and engage students. This course meets for five hours each week. PR: Admission into FSU. There are no minimum test score requirements for this course.

### MATH 1430 College Algebra with Support ..... 4 hrs.

This course fulfills the same requirements as MATH 1530: College Algebra and is intended for students who do not meet the pre-requisites for MATH 1530. The course will cover all content included in MATH 1530, as well as provide integrated academic support. This course includes the study of real numbers, complex numbers, algebraic expressions, equations and inequalities, functions and function operations, composition of functions, inverse functions, graphing and transformation of functions, exponents and radicals, quadratic, exponential, and logarithmic functions, and applications. It will also reinforce fundamental algebraic concepts and review pre-requisite topics, such as evaluating expressions, graphing and functions, linear equations, factoring, and geometric concepts, as deemed necessary. This course will utilize lectures, discussions, computer-assisted work, group activities, and math manipulatives to reinforce concepts and engage students. This course meets for five hours each week. PR: MATH ACT 19-20 (or equivalent) or MATH 1011 with a "C" or better or MATH 1400 with a "C" or better.

### MATH 1507 S-FSU Fundamental Concepts of Mathematics ..... 3hrs.

This introductory survey course is specifically designed to fulfill the General Studies requirements for quantitative literacy. It is designed to strengthen computational skills while focusing on real-world problems. Topics may include critical thinking skills, sequences, set theory, logic, probability, statistics, consumer mathematics. A grade in Math 1107 of C or better will permit enrollment into Math 1011 or Math 1101 & 1001. No student may receive credit for both MATH 1407 and MATH 1507. PR: Math ACT <sup>3</sup> 19 or Math SAT <sup>3</sup> 460 or Math COMPASS <sup>3</sup> 36 or MATH 0095 or MATH 0086 or Math 1007 with a "C" or better.~

### MATH 1510 S-FSU Applied Technical Mathematics I ..... 3 hrs.

This course is an introduction to fundamental mechanics and techniques for performing operations with algebraic expressions, and

subsequently solving linear equations, systems of linear equations and quadratic equations. The course also introduces trigonometric functions and is designed to develop methods of solving right angles and oblique triangles using trigonometry. PR: MATH ACT 19 or MATH SAT 460 or COMPASS 36 or MATH 0095 or MATH 0088 or MATH 1001 with a "C" or better or MATH 1400. MAJOR RESTRICTION – MAJORS in the College of Science and Technology.

**MATH 1520 S-FSU Applied Technical Mathematics II..... 3 hrs.**

This course is a continuation of Math 1101. Topics include solving radical equations and polynomial equations, complex numbers, exponential and logarithmic functions, inequalities and trigonometry. PR: MATH 1510 ?C or Better with a "C" or better. MAJOR RESTRICTION – MAJORS in the College of Science and Technology.

**MATH 1530 S-FSU College Algebra ..... 3 hrs.**

This course includes the study of real numbers, complex numbers, algebraic expressions, equations and inequalities, functions and function operations, composition of functions, inverse functions, graphing and transformations of functions, exponents and radicals, quadratic, exponential, and logarithmic functions, and applications. No student shall receive credit for both MATH 1430 and MATH 1530. PR: MATH ACT 21 or MATH SAT 500 or MATH COMPASS 49 or Pierpont MATH 1100 or MATH 1012 with a "C" or better or MATH 1400 with a "C" or better.

**MATH 1540 S-FSU Trigonometry and Elementary Functions ..... 3 hrs.**

This course includes a study of circular and trigonometric functions and applications, trigonometric identities, equations and graphs of circular functions, functions and inverse functions, vectors, and other related topics. PR: MATH ACT score of 23 or MATH SAT of 540 or COMPASS score of 63 or a C or better in MATH 1112 or a "C" or better in MATH 1430 or a "C" or better in MATH 1530.

**MATH 1550 Applied Statistics..... 3 hrs.**

This course is an introduction to statistics with appropriate applications. Topics covered include descriptive statistics, probability, binomial distribution, normal distribution, sampling, hypothesis testing and regression and correlation. A problem-solving approach and modern software will be used. PR: MATH ACT score of 21 or MATH SAT of 500 or COMPASS score of 49 or MATH 1102 or MATH 1112 or MATH 1520 or MATH 1430 or MATH 1530.

**MATH 1561 Introduction to Mathematical Reasoning ..... 3 hrs.**

This course is designed to help students transition into upper level college mathematics. Students will learn how to reason mathematically by reading and writing using technical mathematical terminology. Topics covered include basic set theory, mathematical logic, basic methods of proof including mathematical induction, properties of the field of real numbers, basic number theory and function notions, as well as sequences and series. PR: C or better in MATH 1115 or MATH 1540 OR MATH ACT score of 24 OR (MATH 2251/2551 and 2252/2552).

**MATH 1585 Applied Calculus I..... 4 hrs.**

A study of calculus with an emphasis on its applications to science, business, technology and social science. Topics covered using the derivative: functions and their graphs, max/min problems, related rates, approximation of change, and curvilinear motion. Topics covered using the integral: area, volume, and accumulation functions. Graphing calculators and mathematical software will be introduced and used throughout the course. PR: MATH ACT score of 24, or MATH SAT 560 or COMPASS score of 67 or MATH 1115 or MATH 1540 or MATH 1102 with "B" or better or MATH 1520 with a "B" or better.

**MATH 1586 Applied Calculus II..... 4 hrs.**

A continuation of the study of calculus as applied to science, business, technology and social science. The integral will be further studied, including applications of area, volume, accumulation functions, curvilinear motion, solutions to some simple differential

equations and other applications chosen from a variety of disciplines. Students will examine sequences and series involving convergence and divergence, power series and Taylor polynomials and series. The calculus of vectors and multivariable functions will be introduced and partial derivatives and multiple integrals will be used to study applied problems from a variety of disciplines. Graphing calculators and mathematical software will be used throughout this course. PR: MATH 1185 or MATH 1585. Spring semester only.

**MATH 2501 Calculus I ..... 4 hrs.**

This course is the calculus of one variable, beginning with an intuitive study of limits and a geometric interpretation of the derivative. Topics include differentiation of functions and the application of the derivative to graphing functions, approximating functions, solving max/min problems and related rate problems, anti-differentiation and its link to the signed area under a curve, the fundamental theorem of calculus and applications of the definite integral. PR: MATH ACT score of 25, or MATH SAT 570, or COMPASS 73, or MATH 1115 or MATH 1540 or MATH 1170 or MATH 1186 or MATH 1586.

**MATH 2502 Calculus II..... 4 hrs.**

This course is a continuation of MATH 2501. Topics include applications of the definite integral, exponential and logarithmic functions, inverse trigonometric functions, techniques of integration, conic sections, plane curves and polar coordinates, limits involving indeterminate forms, improper integrals, sequences, and infinite series. Spring semester only. PR: MATH 1190 or MATH 2501.

**MATH 2510 Mathematical Logic..... 3 hrs.**

This course covers sentential and general theory of inference, theory of proof and definition and elementary intuitive set theory. PR: MATH 1115 or MATH 1540 or MATH 1170 or MATH 1561 or MATH 1185 or MATH 1585 or MATH 1190 or MATH 2501. Spring semester only.

**MATH 2520 Introduction to the Theory of Numbers... 3 hrs.**

Topics include prime numbers, the unique factorization theorem, congruences, Diophantine equations, primitive roots and the quadratic reciprocity theorem. PR: MATH 1190 or MATH 2501. Spring Semester Even Years Only.

**MATH 2551 Structure of the Real Numbers..... 3 hrs.**

This course starts with basic concepts of sets and continues with properties of operations and a logical development of the set of real numbers. Beginning number theory concepts and an introduction to probability are also included. This course connects structure to prior math knowledge and real-world applications. PR: Math 1112 or MATH 1430 or MATH 1530 or Math ACT of 23 or Math SAT of 540 or Compass score of 63, and admission to Teacher Education.

**MATH 2552 Data Analysis and Geometry ..... 3 hrs.**

This course offers an introduction to data analysis and statistics and the study of geometry. Included is descriptive statistics, a discussion of matrices, standard and non-standard measurement, a formal and informal approach to geometry, van Hiele levels, and the use of dynamic geometry software, and real-world applications of these topics. PR: Math 1112 or MATH 1430 or MATH 1530 or Math ACT of 23 or Math SAT of 540 or Compass score of 63, and admission to Teacher Education

**MATH 2562 Introduction to Discrete Mathematics..... 3 hrs.**

This course is designed to provide a survey of the reasoning and objects of study found in discrete mathematics. Topics considered include sets, relations, functions, combinatorics, graphs, trees, discrete probability, algorithms, and recurrence relations. Interspersed throughout the course will be material on the nature of proofs. PR: MATH 1115 or MATH 1540 or MATH 1170 or MATH 1561 or MATH 1185 or MATH 1585 or MATH 1190. Fall semester only.

**MATH 2563 Transition to Higher Mathematics ..... 3 hrs.**

The goal of this course is to transition the student into the more formal and proof-oriented world of advanced mathematics. The focus of the course will be developing the requisite skills needed to write an effective and elegant proof. The course will use as its means

of approaching proofs the subjects of number theory, relations, and functions. PR: MATH 1170 or MATH 1561 or (MATH 1125 and MATH 1190/2501). Fall semester only.

**MATH 3503 Calculus III..... 4 hrs.**

This course is a continuation of Math 2502. Sequences and series will be followed by a study of calculus of two and three variables. Topics include vectors, dot product, cross product, lines, planes, vector functions and their derivatives and integrals, the study of quadric surfaces, partial differentiation, gradient, and multiple integrals. PR: (MATH 3315 or MATH 2502) or (MATH 1186/1586 and MATH 1190/2501). Fall Semester Only.

**MATH 3504 Differential Equations..... 3 hrs.**

A study of first-order and simple higher-order ordinary differential equations and their applications, linear differential equations with constant coefficients and their application, simultaneous differential equations and their applications, the numerical solution of differential equations and solution of differential equations by use of series. PR: MATH 3315 or MATH 2502. Spring Semester Odd Years Only.

**MATH 3520 Linear Algebra..... 3 hrs.**

This course covers vector spaces abstractly defined, linear dependence and independence, bases and subspaces, dimension of linear space, linear mappings, kernel and image of maps, rank of maps, linear maps as vector spaces, composition of mappings and multiplication of matrices, the relation between linear mappings and systems of linear equations, row reduced echelon matrix, invertible matrices, calculation of inverse, linear inequalities and half spaces. PR/CR: MATH 3315 or MATH 2502. Fall Semester Only.

**MATH 3540 Numerical Analysis..... 3 hrs.**

In this course, students will investigate solutions of equations, functional iteration of equations, analysis of special methods such as the methods of false position and of Newton, iteration for systems of equations, reduction to first order systems, Gaussian elimination and some iterative methods for inversion. PR: COMP 1102 and (MATH 3315 or MATH 2502). Fall Semester Odd Years Only.

**MATH 3550 Probability and Statistics..... 3 hrs.**

Course topics include sample spaces, events as subsets, probability axioms, finite sample spaces and equiprobable measure as special case, binomial coefficients and counting techniques applied to probability problems, conditional probability, independent events, Bayes' formula, random variable, probability functions, density and distribution functions, special distributions, independent random variables, Poisson and normal approximation to the binomial and some statistical real-world applications. Students will also learn estimation and sampling, point and interval estimates, hypothesis-testing, power of a test and regression. PR: MATH 3315 or MATH 2502. Spring Semester Only.

**MATH 3553 Math Methods for Elementary Teachers ..... 3 hrs.**

This course is designed to prepare pre-service elementary school teachers to teach mathematics. Students will study tools for teaching mathematics, math teaching strategies, current topics in math education, problem solving and reasoning, and assessment. Numerous laboratory experiences are required such as micro-teaching and construction of a NCTM Standards-based unit. PR: (MATH 2251 or MATH 2551) and (MATH 2252 or MATH 2552) and EDUC 2260 with a C or better in each. Major Restriction: Admission to Teacher Education.

**MATH 3570 Modern Geometry..... 3 hrs.**

A brief review of informal Euclidean geometry, including areas and volumes. The course will also include a formal development of Euclidean geometry using a transformation approach; concepts such as incidence, non-Euclidean geometry and finite geometries are briefly introduced. PR: MATH 1125 or MATH 1561 and (MATH 1190 or MATH 2501). Fall Semester Even Years Only.

**MATH 4400 Seminar ..... 1-3 hrs.**

PR: Instructor approval required.

**MATH 4520 Abstract Algebra..... 3 hrs.**

*Writing Intensive*

Topics include sets, relations, functions, operations, algebraic systems such as integers, rationals and matrices, isomorphism and examples. Students will examine equivalence classes, groups, subgroups, cyclic groups, basic theorems, Lagrange's theorem, homomorphism, normal subgroups, quotient group, the isomorphism theorems, rings, integers, matrices, polynomials, integral domains, and fields. The course will also cover various topics of rings. PR: ENGL 1102, (MATH 1190 or MATH 2501) and (MATH 2212 or MATH 2563). Spring Semester Only.

**MATH 4531 Methods and Materials in Teaching Mathematics..... 3 hrs.**

This course is designed for senior education majors with a math teaching specialization in either grades 5-Adult or 5-9. The study of mathematics curricula and methods at the middle and high school levels includes topics in number, algebra, geometry, trigonometry, statistics, probability, calculus, discrete mathematics, as well as the historical development of these topics. Numerous laboratory experiences such as microteaching and math tutoring are required. 5-9 and 5-Adult must complete this course prior to enrolling in Secondary Student Teaching/Clinical III. Fall Semester Only. Must be admitted to Teacher Education to take this course.

**MATH 4580 Topology 3 hrs.**

This course consists of the study of topological spaces and notions, including continuity, convergence, separation, compactness and connectedness. PR: (MATH 2212 or MATH 2563) and (MATH 3316 or MATH 3503). Spring Semester Odd Years Only.

**MATH 4590 Real Analysis..... 3 hrs.**

Covers real numbers, topology of the reals, infinite series, continuous functions, sequences and series of functions, differentiation, integration and power series. PR: (MATH 2212 or MATH 2563) and (MATH 3316 or MATH 3503). Spring Semester Even Years Only.

**MATH 4998 Undergraduate Research..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## MECHANICAL ENGINEERING TECHNOLOGY

### MECH 1100 Statics ..... 3 hrs.

The study of force systems that act on rigid bodies in static equilibrium. Topics of study include the analysis of coplanar and noncoplanar force systems using analytical and graphical methods. PR: MATH 1102, or 1115, or CR: MATH 1102.

### MECH 1199 Special Topics in Mechanical Engineering Technology ..... 1-12 hrs.

Studies in special selected topics, to be determined by the instructor and approved by the department chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

### MECH 2200 Strength of Materials..... 4 hrs.

The analysis of stress and deformation of deformable bodies under the action of forces. Students will examine the design and selection of tension and compression members, shafts and beams, stress and strain, Hook's Law, mechanical properties of engineering materials, torsion, bending and buckling theory. PR: MATH 1102 and MECH 1100 with a C or better in both.

### MECH 2210 Thermodynamics I ..... 3 hrs.

An introduction to the thermodynamic laws of conservation of mass and energy. Students will explore applications in the analysis of energy sources, transformations and utilizations. PR: MECH 1100 with a C or better.

### MECH 2220 Fluid Mechanics ..... 3 hrs.

A study of the mechanics of fluid systems. Topics include fluid statics and dynamics, dimensional analysis and similitude, steady flow of incompressible fluids in pipes, ducts, and open channels, steady flow of compressible fluids over surfaces and about immersed bodies and turbomachinery. PR is one of the following: PR: MECH 2200, TECH 2290 or MATH 1185 or MATH 1190.

### MECH 2240 Machine Design I..... 3 hrs.

Application of the principles of mechanics to the design and selection of machine components. Topics of study include beams, columns, shafts, gears, bearings, belts, brakes, and springs. Design projects will be assigned and computer solutions will be utilized. PR: MECH 2200, COMP 1101 and either TECH 2290 or MATH 1185 or MATH 1190. The class will be an individualized, arranged course, with learning outcomes determined by the instructor in consultation with the student and permission of the school's dean.

### MECH 3300 Thermodynamics II ..... 3 hrs.

A continuation of the study of thermodynamics, with special emphasis on equations of state, calorimetry, processes, heat engines and the Second Law of Thermodynamics. Topics include PVT relationships of pure substances, caloric equations of state, properties of multi-phase substances, processes of compressible and incompressible gases, liquids, solids, and multi-phase substances, the Carnot heat engine, entropy, refrigeration and heat pump cycle, the Third Law of Thermodynamics and the analysis of Carnot cycles. PR: MECH 2210.

### MECH 3320 Dynamics ..... 3 hrs.

The study of Newtonian dynamics of particles and rigid bodies in plane motion. Topics include Kinematics, Newton's Laws, work and energy principles and impulse momentum. Baccalaureate majors only. PR: MECH 1100 and TECH 3300 or MATH 1186 or MATH 3315.

### MECH 3330 Heat Transfer I ..... 3 hrs.

A study of heat energy interactions in solids, liquids, and gases. Topics include fundamental laws of conduction, convection and radiation heat transfer. Baccalaureate majors only. PR: PHYS 1102, TECH 3300 or MATH 1186 or MATH 3315.

### MECH 3340 Heating, Air Conditioning and Ventilation ..... 3 hrs.

A study of the principles of fluid mechanics, thermodynamics and heat transfer as applied to HVAC systems. Topics include: heating and cooling load calculations, heating, air conditioning and refrigeration systems; automatic controls; heat pumps for heating and cooling; solar heating and cooling systems. PR: MECH 2220, MECH 3300, and MECH 3330.

### MECH 3350 Numerical Methods..... 3 hrs.

A study of numerical methods, with application to the formulation and solution of engineering problems. Topics include mathematical modeling, engineering problem solving, roots and equations, curve fitting, numerical integration and ordinary differential equations. Digital computers and software are used extensively. PR: COMP 1101, PHYS 1101, and either TECH 2290 or MATH 1185 or MATH 1190.

### MECH 4400 Mechanical Measurements ..... 3 hrs.

*Writing Intensive.*

This course is a study of the measurement of motion, force, torque, power, temperature, pressure, fluid flow, and strain. Topics include direct and indirect measurement, sensor theory of operation and selection, curve fitting and data analysis. A Writing Intensive experience will be included in this course through multiple writing assignments including laboratory and design reports. PR: ENGL 1102, PR: MECH 3320 or CR: MECH 3320.

### MECH 4410 Thermodynamics III ..... 3 hrs.

A continuation of the study of thermodynamics, with special emphasis upon application to heat, power and refrigeration systems. Topics include energy availability and irreversibility in open and closed thermodynamic systems, mixtures of gases and vapors, reactive systems, internal and external combustion power cycles, reversed cycles and flow through nozzles and diffusers. PR: MECH 3300, 3330.

### MECH 4430 Heat Transfer II ..... 3 hrs.

A continuing study of conduction, convection, and radiation heat transfer, with emphasis on application to residential, commercial and industrial and heat exchanger design. Topics include steady-state transient heat conductions, free and forced heat convection, condensing and boiling heat transfer, radiation, transfer by combined mechanisms, numerical and analog methods. PR: MECH 3330.

### MECH 4440 Engineering Systems Design Laboratory ..... 3 hrs.

A study of analog, digital and mixed engineering systems, similitude of mechanical and electrical engineering systems, dimensional analysis and theory of models. PR: MECH 3300, MECH 3320.

### MECH 4998 Undergraduate Research ..... 0-6 hrs.

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## MUSEUM STUDIES

### MUSM 1100 Introduction to Museums ..... 3 hrs.

This course will introduce students to the various types of museums (historical, art, historic site/house, representational, etc.), as well as presenting a general overview of museum operations (programming, fundraising, grant writing, volunteer management, interpretation, exhibit design and construction, personnel training and management, collections management and museum networking).

**MUSM 2150 Folk Arts ..... 3 hrs.**

This studio course is designed to give students a hands-on learning approach to the historical understanding and making of traditional/historical folk arts. Various materials will be used including fiber, wood, metal, paper, natural materials, and more to explore weaving/quilting, carving, tinsmithing/metal tooling, marbling/book binding/band box construction, doll making, and other traditional folk arts and crafts. An element of research will also be included in this course. This course, as a component of the Museum Studies program, will emphasize the application of folk art making skills to that of museum interpretation. Also listed as FOLK 2150.

**MUSM 3210 Museum Interpretation and Education..... 3 hrs.**

This course will explore the various avenues by which the context of a given museum may be interpreted to the public visitor, researcher, and school children groups, as well as training and mission statement interpretation to the museum staff, administration, volunteer organization students, interns, etc. that may be involved with the museum operation. Various avenues of actual interpretation will include the use of the museum facilities (buildings, artifacts, publications, etc.), as well as the various aspects of oral interpretation (first person role play, costumed interpreter/demonstrator, third person/costumed or not, etc.). The course will also allow students to explore all types of museum educational programming and concepts with special emphasis on children's visitation, special events, adult programming, lecture series, fairs and festivals, visiting presenters, outreach education, etc. Special attention will be drawn to the various educational techniques and tools used as well as evaluation processes. The design and publication of museum materials (handbooks, exhibit cards, exhibition catalogues, research and information books, journals, newsletters, etc.) will be covered in this course also. A major goal of this course will be to establish understandings of museum/school relationships as well as an enhancement of general public lifelong learning experiences. PR: MUSM 1100.

**MUSM 3220 Museum Collections Management..... 3 hrs.**

This course will address all of the various issues regarding museum collections both those of two and three dimension (paper memorabilia, three dimensional artifacts, buildings, grounds, other structures, etc.). The various technical aspects of managing collections (acquiring, identifying, processing, cataloging, storing, displaying, preserving, conserving, researching, etc.) will be the focus of this course. PR: MUSM 1100.

**MUSM 3230 Exhibit Design and Construction..... 3 hrs.**

This course will be the most technical of the museum studies program and will be concerned with museum exhibit planning, research, text writing, design, construction, and installation of various types of storyline exhibits and presentations. Techniques used will include computer graphics, photography, silk-screening, dry mounting, fixture and kiosk construction, lighting/ventilation/audio visual application, and other processes. PR: MUSM 1100.

**MUSM 3301 Material Culture ..... 3 hrs.**

A study of the tangible evidence of civilization, including through the perspective of Appalachian culture. Material culture is presented within the context of folk life and traditional craftsmanship, including crafts, arts, traditional foodways, clothing, tools and technology. Students examine material folk culture from various methodological and theoretical perspectives, including artifact analysis and fieldwork.

**MUSM 4290 Museum Practicum/Internship/ Capstone ..... 3 hrs.**

[1 credit repeated three times for a total of 3 required credits or 3 credits taken at one time.]

This practicum/internship/capstone course will situate the student in actual hands-on museum(s) located experience. Students will be placed in the museum(s) type (historical, art, etc.) of their choice and will have as many "real" application experiences with interpretation, exhibit design and construction, collections management, public museum educational programming, administrative management, as well as museum administration, fundraising, grant writing, disaster management, volunteer management, and other issues that can be

arranged with the museum(s) of choice. Pre-internship conferencing between the student, museum representative, and the program coordinator will be expected. Conferencing will continue during the experience as well. Course may be taken during regular semester or summer terms. Expected clock hours, 120 total. This course may be taken 1 credit at a time beginning after 9 credits have been accumulated or all at once when all other courses of the program have been completed.

OPTION A: (For students completing MUSM 4290 using the 1 credit at a time option) PR: MUSM 1100 and MUSM 2150 and one of the following: MUSM 3210 or MUSM 3220, or MUSM 3230 with Program Coordinator/Instructor approval.

OPTION B: (For students completing MUSM 4290 taking 3 credits at one time) PR: All other courses in the program: MUSM 1100, MUSM 2150, MUSM 3210, MUSM 3220 and MUSM 3230 with Program Coordinator/Instructor approval.

## MUSIC

**MUSI 1100 Introduction to Music Education..... 1 hr.**

This course is a seminar-style overview of the field of music education. Topics of discussion include philosophies, teaching methods, administration, technology and historical background. Students are required to do some observation in the schools. PR: Music majors and Music Education majors only. Fall, odd years only.

**MUSI 1101 Concerts, Recitals, and Seminars ..... 0 hrs.**

This course is designed to provide concert attendance experience and performance opportunities for music majors and minors. This course is required of all music students each semester except when student teaching. Repeatable. Consult the Department of Music Handbook for specific information. PR: Music, Music Education majors and Music minors

**MUSI 1102 Introduction to Keyboard I..... 1 hr.**

This course in beginning piano is designed as an elective for the student not majoring or minoring in music. It is conducted in a piano lab setting which allows both individual and group participation.

**MUSI 1103 Introduction to Keyboard II..... 1 hr.**

This course in early intermediate piano is designed as an elective for the student not majoring or minoring in music. It is conducted in a piano lab setting which allows both individual and group participation. PR: MUSI 1102 or instructor approval required.

**MUSI 1104 Functional Piano I..... 1 hr.**

This course is required of all students majoring or minoring in music. Piano majors and minors with a piano emphasis may substitute Keyboard Accompanying or other applied electives. Music majors only. Fall semester only. PR: Music, Music Education Major, Music minor

**MUSI 1105 S-FSU Functional Piano II ..... 1 hr.**

This course is required of all students majoring or minoring in music. Piano majors and minors with a piano emphasis may substitute Keyboard Accompanying or other applied electives. Spring semester only. PR: MUSI 1104. Music, Music Education majors and Music minors only.

**MUSI 1106 Guitar Class ..... 1 hr.**

This is a course in beginning guitar and is open to all students. Students will be introduced to staff notation for the guitar and chord chart notation. Basic guitar playing techniques from a variety of styles will be explored. The class is conducted in group format. Students must own a guitar to participate.

**MUSI 1108 Beginning Theory (on demand) ..... 2 hrs.**

This course is designed for beginning music students who need additional background in theory.

**MUSI 1111 Introduction to Music Technology ..... 3 hrs.**

This course is designed for current music majors to give a basic laboratory-style overview of music technology and computer-aided

instruction that can be used in the public school classroom. It is conducted in a lecture/laboratory workshop setting so that students can gain the maximum exposure to music technology in a practical setting. Topics of discussion include: The need for music technology in the classroom, Software programs for elementary general music, Programs for secondary choral music classrooms, Programs for secondary instrumental music classrooms, Miscellaneous Music Education software programs, Music Administration software, and recording technology. Required for all music majors. Elective for music minors with permission of instructor. Spring semester only. Music, Music Education majors, Music minors only.

**MUSI 1112 Piano Ensemble ..... 1 hr.**

Open to students with some piano experience, this course is designed to provide students an opportunity to play in a small ensemble setting. Students will experience a wide variety of styles of literature including arrangements of historically well-known and contemporary orchestral and vocal pieces for keyboard ensemble. Ensemble meets on a regular rehearsal schedule under faculty direction. Repeatable. Instructor approval required.

**MUSI 1113 Theory I ..... 3 hrs.**

This course will review music fundamentals including fluency in treble and bass clef, major and minor scales, key signatures, time signatures, and intervals. The class will then focus on the principles of voice leading, harmonic progression, melody harmonization, non-chord tones, cadences, and simple tonal analysis. This course will run concurrently with MUSI 1114, Aural Skills I. Fall semester only.

**MUSI 1114 Aural Skills I ..... 1 hr.**

This course will introduce students to the fundamentals of aural skills including solfege singing in major and minor, simple rhythm chanting in duple and compound meters, interval recognition from major and minor scales, triad and seventh chord recognition, and melodic dictation. Specific emphasis is placed on proper intonation. This course uses a moveable "do" solfege system. This course will run concurrently with MUSI 1113, Theory I. Fall semester only.

**MUSI 1115 Theory II ..... 3 hrs.**

This course is a continuation of MUSI 1113. Students will briefly review skills learned in MUSI 1113 and then continue their studies of tonal music with a focus on triad inversions, seventh chords, applied/secondary chords, and introduction to chromaticism in tonal analysis. Students will also compose simple pieces in the common practice style utilizing techniques learned in class. This course will run concurrently with MUSI 1116, Aural Skills II. Spring semester only. PR: MUSI 1113 and MUSI 1114 with a grade of "C" or higher.

**MUSI 1116 Aural Skills II ..... 1 hr.**

This course is a continuation of MUSI 1114. Students will briefly review skills learned in MUSI 1114 and then continue to expand their skills in melodic dictation, harmonic dictation, solfege signing, and error detection. Students will also use their aural skills to criticize and react to professional music recordings. This course will run concurrently with MUSI 1115, Theory II. Spring semester only. PR: MUSI 1113 and MUSI 1114 with a grade of "C" or higher.

**MUSI 1117 Rhythmic Reading (on demand) ..... 1 hr.**

This course is designed for all students to improve reading rhythms in music. Spring semester.

**MUSI 1118 Exploring Music in America ..... 3 hrs.**

An exploration of the vernacular traditions within the United States. Students are encouraged to develop their own perspectives, talents, listening/critiquing skills, and appreciation for the musical interests of others. Regular use of sound and video recordings of music will play an integral part in the class.

**MUSI 1119 Exploring Music in World Cultures ..... 3 hrs.**

An exploration of the various styles of music throughout the world. Students are encouraged to develop their own perspectives, talents, listening/critiquing skills, and appreciation for the musical interests of others. Regular use of sound and video recordings of music will play an integral part in the class.

**~ MUSI 1120 S-FSU Music Appreciation ..... 3 hrs.**

An introduction to Western music, the music of other cultures and styles of popular music. Students are encouraged to develop their own perspectives, talents, listening/critical skills, and appreciation for the musical interests of others. Attendance at live performances outside of class time will be required.

**MUSI 1139 S-FSU Voice Class ..... 1 hr.**

A study of the fundamentals of voice production: breathing, resonance, articulation, and style.

**MUSI 1140 Music Private Lessons ..... 1 hr. (repeatable)**

This is a course providing one-on-one private music lessons to the non-music major and Music minors. It is an elective course which is open to all students and may be repeated. Music minors will enroll in this course. A music major may enroll in this course on a secondary instrument in addition to enrolling in MUSI 1160 for their primary instrument. One credit hour equals one half-hour private lesson per week. Students must consult with the instructor for an assigned lesson time during the first week of classes.

**MUSI 1160 Applied Music I ..... 2 hrs. (repeatable)**

This is a repeatable freshman/sophomore-level required course providing one-on-one private music lessons to the music major. Two credit hours equal one one-hour private lesson per week. Students must consult with the instructor for an assigned lesson time during the first week of classes. Music majors who have not passed the Sophomore Evaluation in the Music program will continue to take lessons at this level until they have passed the Sophomore Evaluation. Music, Music Education Majors; music minors with permission of the instructor.

**MUSI 1167 S-FSU Collegiate Singers ..... 1 hr.**

A large mixed chorus open to all students. The Collegiates perform literature from the Renaissance to modern and popular styles. Activities include one or two performances per semester and a spring tour. Repeatable.

**MUSI 1168 S-FSU Marching Band ..... 2 hrs.**

Open to students who play a band instrument or have the necessary skills to participate in one of the auxiliary units such as flags, rifles, or twirlers. The Marching Band performs at all home football games during the fall semester and at various marching band activities such as parades and festivals. Repeatable. Fall semester only.

**MUSI 1169 S-FSU Wind Ensemble ..... 1 hr.**

The Wind Ensemble is a group of wind and percussion students performing the highest quality literature for the wind band medium in order to develop individual aesthetic sensitivity and awareness. Emphasis is on the development of individual and ensemble musicianship and performance skills through the study of diverse and fine literature for wind instruments. Wind Ensemble is a one-credit course and performs two concerts a semester. Open to all students. Repeatable. Spring semester only.

**MUSI 1176 Guitar Ensemble ..... 1 hr.**

This is the chamber ensemble for music and music education majors and minors in guitar. Repeatable. Admission is by audition at the discretion of the director.

**MUSI 1199 Special Topics in Music ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the Department Coordinator and School's cDean. Credits earned will be applicable as free electives in degree and certificate programs.

**MUSI 2204 Functional Piano III ..... 1 hr.**

This course is required of all students majoring or minoring in music. Piano majors and minors with a piano emphasis may substitute Keyboard Accompanying or other applied electives. Fall semester only. PR: MUSI 1105.

**MUSI 2205 Functional Piano IV ..... 1 hr.**

This course is required of all students majoring or minoring

in music. Successful completion is required to pass the piano proficiency requirement for music education and the music minor. Piano majors and minors with a piano emphasis may substitute Keyboard Accompanying or other applied electives. Spring semester only. PR: MUSI 2204.

**MUSI 2206 Music Appreciation for Majors..... 3 hrs.**

A survey of the history and literature of music, designed for the music major and minor. The study of the various styles and forms of western art music, world music, and popular music will include regular use of sound and video recordings. The purpose of the course is the development of a greater depth of understanding and appreciation of music. Fall semester only. Music majors and minors only.

**MUSI 2211 String Class I-II ..... 1 hr.**

This course is open to all students with sufficient background in music. A working knowledge of string instruments is attained through class instruction. Fall semester only.

**MUSI 2213 Brass Class I-II ..... 1 hr.**

This course is open to all students with sufficient background in music. A working knowledge of brass instruments is attained through class instruction. Fall semester only.

**MUSI 2215 Woodwind Class I-II ..... 1 hr.**

This course is open to all students with sufficient background in music. A working knowledge of woodwind instruments is attained through class instruction. Spring semester only.

**MUSI 2217 Percussion Class ..... 1 hr.**

Open to all students with sufficient background in music. A working knowledge of percussion instruments is attained through class instruction. Spring semester only.

**MUSI 2219 Guitar Class for Music Majors ..... 1 hr.**

This course is in the fundamentals of playing the guitar. It designed to address the needs of the music education major. Music education majors only. Spring semester only.

**MUSI 2223 Theory III ..... 3 hrs.**

This course is a continuation of MUSI 1115. Students will briefly review skills learned in MUSI 1115 and then delve into the chromatic harmonies of common practice music. Topics will include secondary function chords, Neapolitan chords, augmented sixth chords, and modulatory techniques. Students will analyze longer musical excerpts and be expected to compose pieces in the common practice style utilizing techniques learned in class. Fluency in alto and tenor clef will also be a requirement. This course will run concurrently with MUSI 2224, Aural Skills III. Fall semester only. PR: MUSI 1115 and MUSI 1116 with a grade of "C" or higher.

**MUSI 2224 Aural Skills III ..... 1 hr.**

This course is a continuation of MUSI 1116. Students will briefly review skills learned in MUSI 1116 and then continue advancing their skills in solfege singing, dictation, and aural analysis. Chromaticism, including applied and borrowed chords, will be added to the expectations of students along with simple modulation. This course will run concurrently with MUSI 2223, Theory III. Fall semester only. PR: MUSI 1115 and MUSI 1116 with a grade of "C" or higher.

**MUSI 2225 Theory IV ..... 3 hrs.**

This course is a continuation of MUSI 2223. Students will briefly review skills learned in MUSI 2223 and then finish their studies in chromatic harmony as exemplified by composers from the end of the Romantic era. Students will then begin to learn 20th century techniques of composition and analysis including extended tertian harmony, atonality, twelve-tone theory, pitch-class technique, exotic scales, and minimalist technique. The class will conclude with a survey of contemporary music composition practices including postmodernism, postminimalism, and neoclassicism. Students will be expected to compose short pieces in various contemporary styles to learn these techniques. This course will run concurrently with MUSI 2226, Aural Skills IV. Spring semester only. PR: MUSI 2223 and MUSI 2224 with a grade of "C" or higher.

**MUSI 2226 Aural Skills IV ..... 1 hr.**

This course is a continuation of MUSI 2224. Students will briefly review skills learned in MUSI 2224 and then continue advancing their skills in solfege singing, dictation, and aural analysis. Students will sing simple octatonic, exotic scale, and atonal melodies. Students will also chant rhythms in mixed or asymmetric meters, polyrhythms, mixed beat divisions, and perform simple metric modulations. This course will run concurrently with MUSI 2225, Theory IV. Spring semester only. PR: MUSI 2223 and MUSI 2224 with a grade of "C" or higher.

**MUSI 2245 Fundamentals of Conducting ..... 2 hrs.**

This course is designed to acquaint the student with standard conducting techniques, including a working knowledge of all standard beat patterns, various types of articulation, preparatory beats, cutoffs, and various types of fermatas.æ Students will also study conducting terminology and transposition.æ These skills will be practiced and applied by conducting musical works in class. PR: MUSI 2225 or by instructor approval. Fall semester only.

**MUSI 2247 S-FSU Jazz Ensemble ..... 1 hr.**

Open to saxophonists, trombonists, trumpeters, percussionists, guitarists, bassists and pianists regardless of academic major. The ensemble involves study, rehearsal, and performance of selected literature of all styles and more specifically explores a variety of big-band, jazz, jazz-rock, Latin, funk and other styles of jazz music. The jazz ensemble works with a variety of soloists from vocalists to instrumentalists. Jazz combos may be selected from the Jazz Ensemble membership. The ensemble performs a minimum of two concerts per year. Repeatable. Admission is by audition at the discretion of the director.

**MUSI 2249 Advanced Woodwind Ensemble..... 1 hr.**

Open to advanced woodwind students. Includes various Woodwind ensembles. Repeatable. Audition or admission at the discretion of the director.

**MUSI 2251 Instrument Repair and Maintenance ..... 2 hrs.**

A survey of the simple instrument repair problems that are commonly encountered in a school music program. Practical repair experiences are included where appropriate. Offered on demand.

**MUSI 2275 Advanced Brass Ensemble..... 1 hr.**

Open to advanced instrumental students, this course is designed to give students an opportunity to participate in small ensembles. Groups meet on a regular weekly rehearsal schedule under faculty direction. Repeatable. Audition or admission at the discretion of the director.

**MUSI 2277 S-FSU Chamber Choir ..... 1 hr.**

Open to all students. Designed to give students experience in small ensemble participation. This group performs a wide variety of a cappella music. Repeatable. Audition at beginning of each semester.

**MUSI 2279 Advanced Percussion Ensemble..... 1 hr.**

Open to advanced percussion students and students with percussion experience. Designed to give students experience in small ensemble participation: Groups meet on a regular rehearsal schedule under faculty direction. Repeatable. Audition or admission at the discretion of the director.

**MUSI 2280 African Drum and Dance Ensemble ..... 1 hr.**

African Drum and Dance Ensemble is an elective, experimental ensemble whose repertoire is focused on the music of non-western traditions. Taught primarily through oral tradition, this course allows members to experience the learning process without written music. While the focus of the ensemble is musical, the cultural context relevant to the music studied is naturally incorporated, giving the participants a deeper understanding of the music performed. Works learned throughout the course will be featured in a culminating performance. No prior experience required. Repeatable.

**MUSI 3309 Orchestration..... 2 hrs.**

A survey of the technical abilities and limitations of the instruments of the orchestra and band with an emphasis on the practical fundamentals of score preparation.

**MUSI 3310 Counterpoint (on demand) ..... 2 hrs.**

A study of the style and technique involved in the writing of sixteenth century polyphonic music. PR: MUSI 2225.

**MUSI 3311 Form and Analysis ..... 2 hrs.**

A study of form and the analysis of music, as found in the literature from the seventeenth to the twentieth centuries. PR: MUSI 2225 with a grade of "C" or higher.

**MUSI 3312 Composition (on demand)..... 2 hrs.**

This course is designed to teach, through the study of various types of music, a basic and accepted approach to creative composition. PR: MUSI 2225.

**MUSI 3313 Music in Western Civilization to 1750..... 3 hrs.***Writing Intensive*

This course is a study of music history and literature from antiquity through the Baroque period. Students will develop their listening and score-reading skills through study of the compositions of these eras. Music Majors only. PR: ENGL 1102

**MUSI 3314 Music in Western Civilization since 1750 ..... 3 hrs.***Writing Intensive*

This course is a study of music history and literature from the Classical period to the present. Students will develop their listening and score-reading skills through study of the compositions of these eras. Music Majors only. PR: ENGL 1102

**MUSI 3320 Techniques of Keyboard Accompanying .... 1 hr.**

A course designed to acquaint music majors with the techniques involved in playing keyboard accompaniments for performing groups, soloists and chamber music. Students will have regularly scheduled laboratory experiences in playing accompaniments for vocal and instrumental soloists and ensembles. Sight-reading, transposition, and various technical exercises will also be included. Recommended for piano majors. Offered on demand.

**MUSI 3328 Elementary Music Methods and Materials for Majors ..... 3 hrs.**

An in-depth introduction to various teaching methods and materials that can be used by the elementary general music teacher. Methods introduced will include Dalcroze, Gordon, Kodaly and Orff. Materials will be derived from numerous sources and will include music from many countries and cultures. Students will practice and demonstrate basic skills in voice, recorder, autoharp, and Orff instruments, and will practice writing and teaching lesson plans at the Pre-K- 8 grade level. PR: MUSI 1139 and 2219. Fall semester only.

**MUSI 3330 Music in the Elementary Classroom ..... 3 hrs.**

This course investigates fundamentals of music which can be utilized by the non-music teacher. The goal is to present pedagogical techniques that develop singing, listening, rhythm, movement, and other musical skills. The course will equip future elementary teachers with the skills to apply a variety of musical techniques in the classroom, both to teach musical content and to enhance other subject matter. Required for all Elementary Education majors. PR: Admission to Teacher Education.

**MUSI 3347 Advanced Conducting..... 2 hrs.**

This course is a continuation of the techniques studied in MUSI 2245, with an emphasis on refinement of the manual technique as well as basic analytical and marking techniques required for score preparation. Spring semester only. PR: MUSI 2245.

**MUSI 3360 Applied Music II..... 2 hrs.**

This is a repeatable junior/senior-level course providing one-on-one private music lessons to the music major. Two credit hours equal one one-hour private lesson per week. Students must consult with the instructor for an assigned lesson time during the first week of classes. Music majors must have passed the Sophomore Evaluation in the Music program. Music Majors and Secondary Education Music Majors only.

**MUSI 3361 3 hrs. Introduction to Folk Music ..... 3hrs.**

Introduction to Folk Music is an elective course focused on the combination of historical events that resulted in the major early settlement of the Appalachian Mountains, the music and instruments connected with the people who lived in those mountains, the interaction of their music styles and cultures, and the unique music that emerged and eventually birthed much of the music heard today. It is an interactive class that uses traditional oral methods to learn and play songs on a heritage instrument in both individual and jam sessions. No prior experience or musical knowledge is required and mastery of the instrument is not difficult. **Cross-listed as FOLK 3361.**

**MUSI 4425 Marching Band Techniques (on demand)..... 2 hrs.**

This course is designed to explore the various components needed to direct a successful marching band program. Topics will include philosophies, administration, basic marching techniques, show design, accurate charting, music selection, auxiliary units, uniforms and rehearsal techniques.

**MUSI 4429 Instrumental Methods, Materials and Administration ..... 2 hrs.**

Students in this course will learn advanced and practical applications of instrumental conducting techniques, methods, administration and materials used in teaching instrumental music in the secondary schools. Music Education majors only.

**MUSI 4430 Choral Methods, Materials and Administration ..... 2 hrs.**

Advanced and practical application of choral conducting techniques, methods, administration, materials used in teaching choral music in the middle and secondary schools. Music Majors only.

**MUSI 4431 Methods and Materials in Teaching Music..... 2 hrs.**

Techniques, methods and materials used in teaching and administering general music classes and high school music classes. Music Majors only. Fall semester. PR: ENGL 1102, MUSI 3328, 4429 and 4430.

**MUSI 4432 Choral Workshop (on demand)..... 2 hrs.**

This course is designed to upgrade choral instructors' teaching techniques and administration. Includes experiences in conducting choral groups, interpretation, participating in choral rehearsals and performances and the study of problems related to choral teaching and administration.

**MUSI 4433 Instrumental Workshop (on demand)..... 2 hrs.**

Offered to help students improve their instrumental teaching techniques and administration. Includes experiences in conducting instrumental groups, interpretation, participating in instrumental rehearsals and performances and the study of problems related to instrumental teaching and administration.

**MUSI 4434 Composition Workshop (on demand)..... 2 hrs.**

Study of the composition of choral and instrumental works. Students will hear works performed by live groups.

**MUSI 4435 Music Production Workshop..... 1-3 hrs.**

A laboratory experience in music theater. The course culminates in a public presentation of opera or musical comedy. PR: Instructor approval required.

**MUSI 4437 Area Studies in Music Literature I ..... 1-3 hrs.**

Concentrated study of selected areas of music, to be determined by the instructor. Instructor approval required.

**MUSI 4440 Senior Recital..... 1 hr.**

See Department of Music Handbook. All music majors are required to present a senior recital or its equivalent before the faculty jury or public.

**MUSI 4442 & 4443 Theory Workshop (on demand)..... 2-3 hrs.**

Identification of suitable materials for the teaching of theory in the high schools, as well as methodology and pedagogical procedures for theory instruction. May be repeated for additional credit, with a maximum of six hours.

**MUSI 4444 Elementary Workshop (on demand)..... 1-2 hrs.**

Identification of suitable materials for the teaching of elementary music, as well as new and innovative methodology. May be repeated for additional credit, with a maximum of four hours. PR: MUSI 3328. Instructor approval required. Offered on demand.

**MUSI 4998 Undergraduate Research.....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## NATIONAL SECURITY AND INTELLIGENCE

**NSIS 3301 Intelligence Research..... 3 hrs.**

This course will integrate lecture and applications designed to develop basic skills in writing, research, analytical and presentations skills. The course will include lectures, discussions, and computer research design projects.

**NSIS 3302 National Security and Intelligence Field Experience Practicum..... 1-12 hrs.**

A supervised professional study conducted in the National Security and Intelligence field setting. Instructor approval required.

**NSIS 4450 National Security and Intelligence Senior Seminar / Project..... 3 hrs.**

A capstone course which requires students to explore in depth case studies related to national security and intelligence in the areas of national security, intelligence, law enforcement, industrial security, and cyber (information technology) security. Students will be required to collect information, assess vulnerabilities, develop sources, analyze data, write reports, maintain case files, prepare and give oral briefings, and defend recommended courses of action. Students will be supervised in the performance of a directed research project in conjunction with field work at a sponsoring agency. The objective will be an individual project which leads to a publishable intelligence product, enhances intelligence skills, or provides a unique service to a project mentor or organization. Student performance will be evaluated by a committee of faculty members. Input regarding the student's performance will be invited and encouraged from the sponsoring agency. Senior standing or Instructor approval required.

**NSIS 4499 Special Topics in National Security and Intelligence..... 1-12 hrs.**

Studies in special selected topics to be determined by the instructor and approved by the program advisor. Individual students with specific interests work on a tutorial basis with an appropriate professor.

**NSIS 4998 Undergraduate Research.....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for students to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their

discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## NURSING

**NURS 1101 Fundamentals of Nursing..... 7 hrs.**

This course is designed to introduce the beginning student to nursing, concepts essential to the practice of nursing, and the role of the nurse as a care provider. The clinical, laboratory, and simulation experiences involve the implementation of the nursing process and utilization of assessment and communication skills related to basic needs and life processes of individual patients. Factors, such as developmental levels, sociocultural differences, and mental & emotional status are included. (5 hours class, 6 hours lab per week) PR: Admission to the ASN Nursing Program, FOSM 1100, BIOL 1180 and 1181. FOSM 1100 and BIOL 1180 and BIOL 1181 may be taken concurrently.

**NURS 1108 Nursing Care of Adults I..... 6 hrs.**

Nursing Care of Adults I is designed to assist students to use the nursing process to address common health problems of adults. The nursing roles of care provide, communicator, and teacher, are explored to assist individuals to promote and attain health. Clinical, laboratory, and simulation experiences enable the student to implement patient-centered care. The student is expected to integrate and use knowledge and skills acquired in prerequisite courses (4 hours class, 6 hours lab per week). PR: Admission to the ASN program, NURS 1101, BIOL 2205. BIOL 2205 may be taken concurrently.

**NURS 1115 Maternal-Child Nursing I..... 4 hrs.**

Maternal-Child Nursing I focuses on care of the mother in all states of pregnancy and care of the healthy newborn, infant, and child. Clinical, laboratory, and simulation experiences will give students the opportunity to implement patient-centered care for the selected population. (3 hour class, 3 hours lab per week) PR: Admission to the ASN Program, NURS 1101, NURS 1108, and PSYC 1101. NURS 1108 and PSYC 1101 may be taken concurrently.

**NURS 1120 Nursing Pharmacology I..... 1 hr.**

The first pharmacology course is designed to introduce basic concepts of pharmacokinetics, classifications, indications, contraindications, actions, adverse effects, interactions, and nursing considerations related to common medications and their administration. Content is organized to correspond with concurrent nursing courses in a systems approach. (1 hour class per week). PR: Admission to the ASN program, NURS 1101.

**NURS 1199 Special Topics in Nursing..... 1-12 hrs.**

This course is concerned with special studies in selected topics, to be determined by the instructor and approved by the School's Dean. Credits earned will be applicable as free electives in degree and certificate programs. Offered as needed.

**NURS 1200 Nursing Care Across the Lifespan..... 17 hrs.**

This course provides LPN to ASN students the opportunity to build on prior knowledge of common health problems in patients across the lifespan. Emphasis is placed on the nursing process, patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, and safety. Content covered in this course begins with basic nursing concepts, fluid and electrolytes, the reproductive system including normal pregnancy, and immunity. Nursing care of patients with disorders of the integumentary, musculoskeletal, gastrointestinal, and renal systems is also presented including health promotion and maintenance. Selected skill and simulation labs on campus and clinical experiences in the hospital and community settings enable LPN to ASN students to build on knowledge and skills by incorporating clinical judgment in meeting patient needs. (5 hours class, 4 hours lab per week). PR: Admission to the LPN to ASN program, NURS 1101 (credit given with unencumbered LPN license)and FOSM 1110.

**NURS 1201 Mental Health Nursing Across the Lifespan ..... 3 hrs.**

This course provides LPN to ASN students with information that builds on prior knowledge. The focus is on common mental health problems of patients across the lifespan, with an emphasis on patient-centered care, teamwork and collaboration, evidence-based practice, quality Improvement, and safety. Selected laboratory and simulated experiences enable the students to develop the knowledge and skills to use the nursing process to meet the needs of patients having mental health disorders. This course stresses self-awareness, improving therapeutic communication skills, and establishing interpersonal relationships. Topics also include maladaptive behavioral patterns, current therapies, community mental health resources, and the role of nurse as communicator, teacher, and care provider. The concepts of holistic care, diversity, psychosocial environment, and human development are addressed as they apply throughout the course. (2 hours class, 2 hours lab per week). PR: Admission to the LPN to ASN program, PSYC 1101, ENGL 1101.

**NURS 1202 Assessment Across the Lifespan I ..... 1hr.**

This course provides LPN to ASN students with an introduction to physical assessment of the patient across the lifespan. The focus of this course is the nursing assessment of integumentary, reproductive, musculoskeletal, gastrointestinal, and renal systems. Technical skills necessary for patient assessment will be covered. Students will explore factors including sociocultural diversity, mental and emotional status, and developmental levels, which influence the techniques of communication and health assessment. Emphasis will be placed on integrating appropriate clinical judgment with assessment skills in various patient circumstances and situations. (1 hour class per week). PR: Admission to the LPN to ASN program, BIOL 1180/81.

**NURS 1203 Transition for the Licensed Practical Nurses..... 1 hr.**

This course introduces the concepts and processes necessary for professional nursing practice. A major focus is the transition from licensed practical nurse to registered nursing student. This course emphasizes time management, test taking skills, the role of an adult learner, informatics, and the transition from a technical role to the role of a professional. (1 hour class per week). PR: Admission to the LPN to ASN program, or ASN program, and status as a Licensed Practical Nurse.

**NURS 1204 Pharmacology Across the Lifespan I..... 1 hr.**

This course provides LPN to ASN students the opportunity to build on prior knowledge of the pharmacologic and pharmacokinetic effects of medications on the body. Content to be emphasized includes medications used for fluid and electrolytes imbalances, pain control, and maternal-newborn care. In addition, medications used for the reproductive, integumentary, musculoskeletal, immune, gastrointestinal, and renal systems will be presented. This course encourages LPN to ASN students to increase knowledge of medications by understanding the effects of medications on patients across the lifespan. (1 hour class per week). PR: Admission to the LPN to ASN program.

**NURS 2110 Nursing Pharmacology II..... 1 hr.**

The second pharmacology course is designed to introduce basic concepts of pharmacokinetics, classification, indications, contraindications, actions, adverse effects, interactions, and nursing considerations related to common medications and their administration. Content is organized to correspond with concurrent nursing courses in a systems approach. (1 hour class per week) PR: Admission to the ASN Program, NURS 1120.

**NURS 2115 Maternal-Child II ..... 2 hrs.**

Maternal-Child Nursing II focuses on care during the stages of labor and delivery. Students will also examine health problems, disorders and illnesses common in pregnancy and children in each stage of development, from infancy through adolescence. The students will participate in clinical experiences to enhance his/her knowledge in maternal-child nursing. (1.5 hours class, 1.5 hours lab per week) PR: Admission to the ASN Program, NURS 1115.

**NURS 2203 Mental Health Nursing ..... 4 hrs.**

This course is a study of mental health and common mental illnesses as they affect adults, children and families. Selected clinical experiences provide the student with the opportunity to develop the knowledge, empathy, and skills to provide patient-centered care in the psychiatric setting. The student may also participate in the interdisciplinary team meetings. This course stresses the importance of developing self-awareness, improving communication skills, and establishing inter-personal relationships. (3 hours class, 3 hours lab per week) PR: Admission to the ASN Program, PSYC 1101, NURS 1108.

**NURS 2208 Nursing Care of Adults II..... 6 hrs.**

Nursing Care of Adults II is designed to assist students to use the nursing process to address common health problems of adults. The nursing roles of care provider, communicator, and teacher are explored to assist individuals to promote and attain health. Clinical, laboratory, and simulation experiences enable the students to implement patient-centered care. The student is expected to integrate and use knowledge and skills acquired in prerequisite courses (4 hours class, 6 hours lab per week). PR: Admission to the ASN Program, BIOL 2205, NURS 1108.

**NURS 2210 Nursing Pharmacology III..... 1 hr.**

The third pharmacology course is designed to introduce the concepts of pharmacokinetics, classification, indications, contraindications, actions, actions, adverse effects, interactions, and nursing considerations related to medications commonly administered in complex or emergent situations. Content is organized to correspond with concurrent nursing courses in a systems approach (1 hour class per week). PR: Admission to the ASN Program, NURS 2110.

**NURS 2211 Professional Role Transition ..... 2 hrs.**

This course is designed to facilitate the nursing student's transition to the role of registered professional nurse. This course addresses current nursing trends, issues, and the delivery and management of healthcare. The course stresses the importance of developing professional goals with an emphasis on socialization into the nursing profession, management of multiple patients, and application of clinical judgment skills (2 hours class per week). PR: Admission to the ASN Program, NURS 2208 and NURS 2215. NURS 2215 may be taken concurrently.

**NURS 2212 Nursing Care of Adults III..... 3 hrs.**

Nursing Care of Adults III is designed to assist students to use the nursing process to address complex health problems of adults. Emergency care is also discussed. Students learn how to perform in multiple nursing roles within a complex healthcare environment. The student is expected to integrate and use knowledge and skills acquired in prerequisite courses (3 hours class per week). PR: Admission to the ASN Program, NURS 2208 and NURS 2211. NURS 2210, 2220 and NURS 2211 may be taken concurrently.

**NURS 2215 Maternal-Child Nursing III ..... 2 hrs.**

Maternal-Child Nursing III focuses on nursing care of the mother and newborn experiencing complications during prenatal, labor, delivery, and postpartum periods. Students will also focus on the child with more complex health problems. Clinical, laboratory, and simulation experiences will give students the opportunity to implement patient-centered care for the selected population (1.5 hours class, 0.5 hours lab per week). PR: Admission to the ASN Program, NURS 2115.

**NURS 2220 Nursing Capstone Clinical ..... 2 hrs.**

This capstone clinical course allows students to synthesize knowledge from nursing and non-nursing courses to provide patient-centered care to adult patients. Students are assigned to preceptors in the clinical setting and participate in faculty-guided seminars and simulation experiences throughout the semester. Students integrate all program concepts and content as they prepare for the roles of the registered nurse (6 hours lab per week). PR: Admission to the ASN Program, NURS 2211 and NURS 2215. NURS 2210, NURS 2211, NURS 2212 and NURS 2215 may be taken concurrently.

**NURS 2301 Nursing Care Across the Lifespan II..... 7 hrs.**

This course is a continuation of Nursing Care Across the Lifespan I and provides LPN to ASN students the opportunity to build on prior knowledge. The focus is on common health problems of patients across the lifespan, with an emphasis on the nursing process, patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, and safety. Nursing care of patients with disorders of hematologic, cardiovascular, respiratory, endocrine, and neurological systems is also presented including health promotion and maintenance. In addition, the care of the patient with cancer and/or end-of-life issues is presented. Selected laboratory experiences in caring for patients in the hospital and community, as well as high-fidelity simulations will enable the LPN to ASN student to acquire the knowledge and skills to meet the patient's needs by delegating and implementing effective patient care. (5 hours didactic, 4 hours lab per week). PR: Admission to the LPN to ASN program and NURS 1200. BIOL 2205 may be taken concurrently.

**NURS 2302 Assessment Across the Lifespan II ..... 1 hr.**

This course is a continuation of Assessment Across the Lifespan I and provides LPN to ASN students with an introduction to physical assessment of the patient across the lifespan. The focus of this course is the nursing assessment of cardiovascular, respiratory, ear and eye, and neurological systems. Technical skills necessary for patient assessment will be covered. Students will explore factors including sociocultural diversity, mental and emotional statuses, and developmental levels, which influence the techniques of communication and health assessment. Emphasis will be placed on integrating appropriate clinical judgment with assessment skills in various patient circumstances and situations. (1 hour class per week). PR: Admission to the LPN to ASN program, NURS 1202.

**NURS 2303 Pharmacology Across the Lifespan II..... 1 HR.**

This course is a continuation of Pharmacology Across the Lifespan I and provides LPN to ASN students the opportunity to build on prior knowledge of the pharmacologic and pharmacokinetic effects of medications on the body. The content emphasizes medications used for problems with the vascular, hematologic, cardiovascular, respiratory, endocrine, and neurological systems including ear and eye. In addition, medications used for cancer and/or end-of-life care are presented. This course encourages the LPN to ASN student to increase their knowledge of medications by understanding the effects of medications on individuals across the life span. (1 hour class per week). PR: Admission to the LPN to ASN program, NURS 1204.

**NURS 2401 Nursing Care Across the Lifespan III..... 5 hrs.**

This course, along with the capstone course, focuses on complex and critical health problems of patients across the lifespan. Learning experiences provide LPN to ASN students the opportunity to integrate clinical judgment and decision making. Emphasis is placed on the use of the nursing process to promote health across the wellness-illness continuum. Additional content includes emergency and disaster nursing. (1 hour class per week). PR: Admission to the LPN to ASN program, NURS 2301.

**NURS 2402 Role Transition, Professionalism, and Management..... 3 hrs.**

This is the capstone course designed to facilitate LPN to ASN students' transition from the role of a technically prepared nurse to the role of a registered professional nurse. This course addresses trends, issues, and management of health care for patients across the lifespan. Knowledge, skills, and attitudes necessary to continuously improve the quality and safety of patients within healthcare systems are emphasized. (3 hour class per week). PR: Admission to the LPN to ASN program, ENGL 1102.

**NURS 2403 Capstone Clinical Experience..... 3 hrs.**

This is the capstone clinical experience where LPN to ASN students are expected to select a preceptor/role model to assist with understanding the role of a registered professional nurse through a preceptor-facilitated clinical experience. The clinical experience is tailored to each student's interest and professional goals with emphasis on socialization into the nursing profession, management of multiple clients, and application of clinical judgment skills.

Students will attend seminars on campus to share and reflect on clinical experiences. (96 lab hours per semester) PR: Admission to the LPN to ASN program and NURS 2302. NURS 2401 may be taken concurrently.

**NURS 2404 Pharmacology Across the Lifespan III..... 1 hr.**

This course provides LPN to ASN students the opportunity to build on prior knowledge of the pharmacologic and pharmacokinetic effects of medications on the body. Also, this course concentrates on the advanced concepts of medication administration. Drug classifications, actions, and implications related to the administration of medications for various organ systems are expanded upon. Content emphasized includes the use of medications in critical and complex situations with patients across the lifespan. PR: Admission to the LPN to ASN program, NURS 2303.

**NURS 3320 Health Assessment ..... 4 hrs.**

This course is designed to help students develop skills as providers in health/physical assessment. It includes discussion, demonstration, and the practice of assessment concepts and techniques applicable to various cultural groups and patients across the life span. Critical thinking skills are used to analyze assessment findings and apply them to patient-centered nursing care. (3 hours class, 2 hours lab per week). PR: Admission to the BSN Program or successful completion of the first year of the ASN program.

**NURS 3340 Nursing Care of the Older Adult..... 3 hrs.**

This course explores the unique health-related needs of the older adult. Community experiences give students the opportunity to practice using skills to provide safe, effective, evidence-based care to the older adult. Also explored are the needs of families and caregivers in relationship to the older adult. Special attention is given to culture, legal and ethical care, health promotion, resource management, multi-system disorders, patient-centered care, and interprofessional collaboration (2.5 class hours, 1 lab hour per week). PR: Admission to the BSN program or successful completion of the first year of the ASN program.

**NURS 3350 Professional Nursing Concepts ..... 3 hrs.***Writing Intensive*

This course is designed to introduce the concepts of professional nursing practice and the nurse generalist role. Students explore the healthcare context, health policy, and political action. The core health care competencies, as identified by the Institute of Medicine, are examined. Topics include patient-centered care, interprofessional teams, evidence-based practice, quality improvement, and informatics. The scope of the coursework covers the history, current state, and future of nursing in order to prepare registered nurses for diverse and dynamic professional roles. (3 hours class per week) PR: Admission to the BSN program, ENGL 1102, and NURS 3320; NURS 3320 may be taken concurrently. Active, unencumbered nursing license.

**NURS 3360 Nursing Ethics ..... 3 hrs.**

This course explores the values, codes, principles, and professional standards that govern bioethical and ethical decisions in professional nursing practice. The course supports the student in developing the professional role and the values of altruism, autonomy, human dignity, integrity, and social justice. The course investigates the emerging field of genomics as it relates to ethical decision-making. Case studies of ethical dilemmas are analyzed, and concepts learned are applied to nursing practice. (3 hours class per week) PR: NURS 3340 and NURS 3350; NURS 3340 and NURS 3350 may be taken concurrently. Active, unencumbered nursing license required.

**NURS 3399 Special Topics in Nursing..... 1-12 hrs.**

This course is concerned with special studies in selected topics, to be determined by the instructor and approved by the School's Dean. Credits earned will be applicable as free electives.

**NURS 4400 Research in Nursing Practice..... 3 hrs.**

This course focuses on using research findings to provide nursing care. Students work in teams and use an evidence based model to appraise the applicability and feasibility of new findings and to solve a clinical problem. As part of that model, students must

disseminate findings to outside professional agencies and to their peers. Emphasis is placed on critical thinking, team work, ethics, professionalism, patient-centered care, and life-long learning (3 class hours per week). PR: NURS 3360 and Statistics. NURS 3360 and Statistics may be taken concurrently. Accelerated Program: Instructor approval required. Active, unencumbered nursing license required.

**NURS 4410 Community Health Nursing..... 5 hrs.**

This course focuses on the theories and principles underlying current community health nursing practice. Students explore the reciprocal relationships among individuals, families, and populations as they relate to health promotion, maintenance, and restoration. Emphasis is placed on evidence-based practice, utilization of resources, team work, critical thinking, cultural competence, and community nursing. Community experiences allow student to practice providing patient-centered care (3 hours class, 60 clinical project contact hours per semester).PR: NURS 3360 and NURS 4400. NURS 3360 and 4400 may be taken concurrently. Accelerated Program: Instructor approval required. Active, unencumbered nursing license required.

**NURS 4430 Leadership and Management in Nursing Practice..... 3 hrs.**

In this course, students will explore the nurse generalist's roles as leaders and managers. Leadership and management theories and principles are explored and applied to a variety of health care situations. Emphasis is placed on critical thinking and decision making, team work, change theory, communication skills, conflict management, quality improvement, and resource management (3 hours class per week). PR: BSBA 2209 or MGMT 3308, and NURS 4410. MGMT 3308 or BSBA 2209 may be taken concurrently. Accelerated Program: Instructor approval required.

**NURS 4440 Nursing Practicum ..... 4 hrs.**

This capstone course assists students with the integration and application of knowledge, skills, and attitudes in the professional nurse generalist role. As part of the clinical practicum, students partner with a practicing nurse leader to apply leadership and management skills, implement a change project, and engage in inter-professional collaboration. (2 hour class, 4 hours lab per week). PR: NURS 4410 and NURS 4430. NURS 4430 may be taken concurrently. Accelerated Program: Instructor approval required.

**NURS 4441 School Nurse Practicum..... 4 hrs.**

This clinical practicum is designed to help registered nurses with BSN degrees meet the West Virginia Board of Education standards for practicing school nurses. This specialization prepares nurses for their role as a professional and provider of age-appropriate, patient-centered care in the school setting. The focus in the course is on health education, child-centered care, and advocacy for children and their families. Students currently enrolled in the BSN Program may take this course in the final semester or following graduation (One hour class, 6 hours lab per week). PR: Must be a registered nurse with an active, unencumbered WV license. Must be a graduate of an accredited BSN program. Instructor's approval required.

**NURS 4499 Special Topics in Nursing..... 1-12 hrs.**

This course is concerned with special studies in selected topics, to be determined by the instructor and approved by the School's dean. Credits earned will be applicable as free electives.

**NURS 4998 Undergraduate Research .....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## PHILOSOPHY

**PHIL 1199 Special Topics in Philosophy ..... 1-12 hrs.**

The topic to be studied will be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**PHIL 2200 S-FSU Introduction to Philosophy..... 3 hrs.**

This course serves as a general, topic-based introduction to philosophy. Philosophy wrestles with the enduring questions of life, including: Can we know anything about the external world? Do we have free will? How can someone change so dramatically over time and yet remain the same person? And does God exist? While these sorts of questions are difficult to resolve, this course emphasizes the skills needed to tackle them: to think critically, to construct and evaluate chains of reasoning, and consider many perspectives on any given subject (which are highly transferable to other fields).

**PHIL 2250 S-FSU Great Philosophers..... 3 hrs.**

This course serves as an introduction to philosophy, using classic texts from the western philosophical tradition. Rather than being topic-based, this class focuses on prominent attempts to systematically answer a number of fundamental questions, including: Does knowledge rest on a foundation afforded by reason or the senses? Is there a privileged means of gaining knowledge? And are sensible objects ultimately physical objects or constructions of the mind? By examining how philosophers have systematically answered these (and other) questions, students will not only have the opportunity to evaluate major achievements in our intellectual tradition, but also reinforce how the answer to one major question can condition answers to others (making for a consistent, and potentially intricate, position). Emphasis will also be placed on students acquiring the basic analytical and argumentative tools for grappling with philosophical issues.

**PHIL 2275 Introduction to Logic and Critical Reasoning ..... 3 hrs.**

This course is an introduction to the study of arguments and critical reasoning, as well as how they occur in real-life contexts. Students are expected to learn the role and importance of arguments, how to recognize when arguments are being offered (as opposed, say, to definitions or explanations), how to extract and reconstruct them from their natural language settings, how to classify arguments, how to distinguish between good arguments and fallacious ones, and how to use them well. (Students preparing for the study of law will find this course especially helpful.) Elective Course. No prerequisites.

**PHIL 3325 Ethics ..... 3 hrs.**

A study and evaluation of classical and contemporary theories of right and wrong, good and bad and inhuman conduct, with emphasis on the implications of these theories for resolving contemporary moral problems. The corrosion of dogmatic ethical positions through skepticism and relativism is examined, and helpful responses are introduced. Students will discuss problems in medical ethics as well.

**PHIL 3350 Comparative Religion ..... 3 hrs.**

Description and analysis of the philosophical thought underlying the major religions of the world.

**PHIL 4475 Philosophy of History..... 3 hrs.**

A survey of the philosophical positions, both speculative and analytical, that have been advanced to evaluate humanity's historical understanding and experience. Credit in either philosophy or European history.

**PHIL 4400 Seminar ..... 3 hrs.**

Research and reading for advanced students. Participants are required to write a paper on a philosophical issue of their interest.

**PHIL 4499 Special Topics in Philosophy ..... 1-12 hrs.**

The topic to be studied (at an advanced level) will be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs. PR: at least one philosophy course or permission of the instructor.

**PHIL 4998 Undergraduate Research .....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**PHYSICAL EDUCATION****PHED 1100 S-FSU Fitness and Wellness ..... 2 hrs.**

This course is designed to provide an opportunity for students to make intelligent choices concerning lifelong wellness and to achieve optimum levels of fitness through regular exercise, proper nutrition, weight control and stress management.

**PHED 1101 Basic Physiological Conditioning-Health .... 1 hr.**

This course covers the analysis, application and integration of basic physical conditioning and health concepts. The course is offered in eight-week sessions.

**PHED 1102 Weight Training/Lifting..... 1 hr.**

The analysis and application of the rules, boundaries, strategies, psychomotor skills and safety aspects of the individual sport of weight training/lifting are studied. The course is offered in eight-week sessions.

**PHED 1110 Archery ..... 1 hr.**

The analysis and application of rules, psychomotor skills, and safety aspects of the lifetime sport of archery. This course is offered in eight-week sessions.

**PHED 1111 Aerobics ..... 1 hr.**

The analysis and application of the psychomotor skills, fitness components, and safety aspects in the lifetime activity of dance aerobics are studied. This course is offered in eight week sessions.

**PHED 1112 Badminton ..... 1 hr.**

The analysis and application of rules, boundaries, strategies, psychomotor skills, and safety aspects of the individual sport of badminton. This course is offered in eight-week sessions.

**PHED 1114 Bowling ..... 1 hr.**

The analysis and application of rules, strategies, psychomotor skills, and safety aspects of the individual sport of bowling. This course is offered in eight-week sessions.

**PHED 1116 Casting and Angling ..... 1 hr.**

The analysis and application of the psychomotor skills and safety aspects of the individual sport of casting and angling. This course is offered in eight-week sessions.

**PHED 1117 Disc Sports..... 1 hr.**

The analysis and application of the rules, game strategies, psychomotor skills and safety aspects in the life time sport of ultimate and disc golf are studied. This course is offered in eight week sessions.

**PHED 1120 Basketball (Beginning)..... 1 hr.**

An introduction to the analysis and application of the rules, boundaries, strategies, psychomotor skills and safety aspects of the team sport of basketball. This course is offered in eight-week sessions.

**PHED 1121 Introductory Seminar in Human Movement ..... 2 hrs.**

General survey of instructional and non-educational professional career alternatives available within physical education. Students

will discuss issues, trends, history, philosophy, and future career directions in physical education.

**PHED 1124 Volleyball ..... 1 hr.**

The analysis and application of rules, boundaries, strategies, psychomotor skills, and safety aspects of the team sport of volleyball. This course is offered in eight-week sessions.

**PHED 1125 Table Tennis ..... 1 hr.**

The analysis and application of the rules, game strategies, psychomotor skills and safety aspects in the life time sport of table tennis are studied. This course is offered in eight week sessions.

**PHED 1126 Tennis (Beginning) ..... 1 hr.**

The student will be introduced to basic skills, rules, boundaries, game situations and team play.

**PHED 1130 Flag Football..... 1 hr.**

Addresses the analysis and application of the rules, boundaries, strategies, psychomotor skills and safety aspects of the team sport of flag football. This course is offered in eight-week sessions.

**PHED 1140 Golf ..... 1 hr.**

This course focuses on the analysis and application of the rules, boundaries, strategies, psychomotor skills and safety aspects of the individual sport of golf. This course is offered in eight-week sessions.

**PHED 1145 Pickle Ball..... 1 hr.**

The analysis and application of the rules, game strategies, psychomotor skills and safety aspects in the life time sport of pickle ball are studied. This course is offered in eight week sessions.

**PHED 1155 Track and Field ..... 1 hr.**

The analysis and application of the rules, strategies, psychomotor skills and safety aspects of the various components that make up track and field activities are studied. This course is offered in eight week sessions.

**PHED 1160 Soccer ..... 1 hr.**

The analysis and application of rules, boundaries, strategies, psychomotor skills, and safety aspects of the team sport of soccer. This course is offered in eight-week sessions.

**PHED 1162 Softball ..... 1 hr.**

The analysis and application of the rules, boundaries, strategies, psychomotor skills and safety aspects of the team sport of softball are studied. This course is offered in eight-week sessions.

**PHED 1164 Speedball ..... 1 hr.**

The analysis and application of rules, boundaries, strategies, psychomotor skills, and safety aspects of the team sport of speedball. This course is offered in eight-week sessions.

**PHED 1199 Special Topics in Physical Education..... 1-12 hrs.**

Special topics will be studied, to be determined by the instructor and approved by the School's chairman. Credits earned will be applicable as free electives in degree and certificate programs.

**PHED 2200 Accident Analysis and Emergency Care .... 2 hrs.**

An analysis of problematic areas of accident causation, prevention, emergency treatment and control pertinent to the elementary school environment and teacher responsibilities.

**PHED 2201 S-FSU Introduction to Sport Management..... 3 hrs.**

This course introduces students to the sport industry, the wide range of career opportunities in sport and the economic impact of sport in America. This course includes both the theoretical and applied dynamics of sport management, and topical areas includes political management, operational management, marketing management, event management, staff management and risk management. Required course; CR: BSBA 2209, Principles of Management.

**PHED 2210 S-FSU Sport Marketing & Promotions ..... 3 hrs.**

This course investigates the complex responsibilities of the sport marketing and promotions specialist that unfold through communication exchanges intended to persuade customers toward a favorable belief and/or action. This hands-on course focuses on the interdependent operations of advertising, publicity, sponsorship, atmospherics, incentives, personal contact, community relations, licensing and technology in the sport industry. Required course; PR: BSBA 2204, Principles of Marketing, Fall, Odd Years

**PHED 2211 Anatomy and Physiology ..... 4 hrs.**

An introduction to the basic knowledge of the structure and functions of the human body and the changes that occur during physical activity and sport.

**PHED 2216 Group Fitness Instruction/Programming... 2 hrs.**

This course is designed to provide theoretical knowledge and practical skills in preparation for group fitness instruction.

**PHED 2218 Advanced Personal Training ..... 3 hrs.**

Designed to synthesize the knowledge acquired from an exercise science curriculum with practical application for successful job performance in the fitness industry.

**PHED 2232 Basic Aquatics ..... 2 hrs.**

Introduction to the knowledge and skills necessary to become proficient and safe in or on the water.

**PHED 2233 Advanced Aquatics-Lifeguarding..... 2 hrs.**

Basic and advanced swimming strokes are examined, with an emphasis on achieving proficiency in lifeguarding techniques. Does not apply to Recreation minor. Successful completion of this course is required for Red Cross certification.

**PHED 2240 Outdoor Leisure Activities ..... 2 hrs.**

Safety, knowledge and skills specific to incorporating outdoor recreation into the physical education classroom. Activities are applied and analyzed through the following: experiential education, rappelling, rock climbing, orienteering, geocaching, and others.

**PHED 2241 Gymnastics and Dance ..... 2 hrs.**

This course analyzes and applies safety, instructional strategies, and skill techniques characteristic of gymnastics and dance in basic tumbling, fundamental jazz and aerobic dance.

**PHED 2242 Social Dance..... 2 hrs.**

This course is designed to prepare the pre-service teacher to select, instruct, and evaluate a variety of multi-cultural dances for early childhood, middle childhood and adolescent education.

**PHED 2243 Teaching Team Passing Sports ..... 3 hrs.**

This course is designed to train pre-service teachers to instruct in the following areas: flag football, soccer, basketball, and speedball. Students are required to perform, assess, and analyze fundamental skills in each area. Knowledge of game rules, terminology, safety issues, equipment and playing strategies will enable students to design learning opportunities for different developmental levels of children and adolescents. Majors only restriction

**PHED 2244 Teaching Wall-Net Sports..... 3hrs.**

This course is designed to train pre-service teachers to instruct in the following areas: badminton, table tennis, tennis, pickleball, and volleyball. Students are required to perform, assess, and analyze fundamental skills in each area. Knowledge of game rules, terminology, safety issues, equipment and playing strategies will enable students to design learning opportunities for different developmental levels of children and adolescents. Majors only restriction

**PHED 2246 Teaching Striking / Target Sports..... 3 hrs.**

This course is designed to train pre-service teachers to instruct in the following areas: softball, golf, disc sports, and bowling. Students are required to perform, assess, and analyze fundamental skills in each area. Knowledge of game rules, terminology, safety issues,

equipment and playing strategies will enable students to design learning opportunities for different developmental levels of children and adolescents. Majors only restriction

**PHED 3310 Motor Behavior ..... 3 hrs.**

This course provides undergraduate students with the knowledge necessary to implement developmentally appropriate motor learning experiences in physical education/activity settings. Course information emphasizes learner/performance characteristics, factors affecting movement change based on Newell's Constraint Model, designing developmentally appropriate tasks progressions, and employing theoretically driven instructional approaches to promote success-oriented movement change. PR: PHED 1121.

**PHED 3312 Physiology of Exercise ..... 3 hrs.**

This course investigates the knowledge of basic physiological adaptations that accompany physical activity and sport. PR: C or better in PHED 2211 or BIOL 1180-81.

**PHED 3313 Biomechanics ..... 3 hrs.**

The study of humans in motion, including the structures that are responsible for motion and the forces that influence human motion. PR: C or better in PHED 2211 or BIOL 1180-81.

**PHED 3314 Group Fitness Instruction/Programming... 2 hrs.**

This course is designed to provide theoretical knowledge and practical skills in preparation for group fitness instruction. PR: PHED 3312 with a C or above.

**PHED 3315 Advanced Personal Training ..... 3 hrs.**

Designed to synthesize the knowledge acquired from an exercise science curriculum with practical application for successful job performance in the fitness industry. PR: PHED 3312 with a C or above.

**PHED 3316 Fitness Assessment and Exercise Physiology..... 3 hrs.**

The study of methods of determining fitness levels, developing safe exercise programs and developing and administering group exercise/wellness programs. Emphasis is placed on evaluation techniques and exercise prescription. PR: C or better in PHED 3312.

**PHED 3317 Clinical Applications of Exercise Physiology..... 3 hrs.**

Study of exercise programs for improving the health-related physical fitness of specialized populations. Exposure to cardiac and pulmonary evaluation techniques for purposes of diagnosis and exercise prescription in symptomatic and asymptomatic populations. PR: C or better in PHED 3316.

**PHED 3318 Sport Social Psychology..... 3 hrs.**

This course is designed to introduce undergraduate students to a broad overview of major topics in sport psychology. The primary course objective is to facilitate students' understanding of how psychological factors impact performance in sport and physical activity settings; and how participation in sport/physical activity affects individuals and groups. PR: SOCY 1110, PSYC 1101.

**PHED 3320 Lifespan Motor Development ..... 3 hrs.**

The course will study changes in motor behavior over the human lifespan and the processes which underlie these changes. Emphasis will be placed on current issues and research in motor development. PR: PHED 1121.

**PHED 3323 Teaching Elementary Physical Education ..... 3 hrs.**

This course examines the analysis and application of instructional strategies, psychomotor skills and patterns characteristic to the elementary physical education curriculum in the following areas: movement education, fundamental and manipulative skills, rhythmic activities and sport lead-up games. Fall semester only.

**PHED 3324 Performance-Based Assessment ..... 3 hrs.**

This course examines the evaluative process through the design

and application of performance-based assessment instruments. The course will focus on authentic assessment of standards-based instruction in the physical education setting from pre-school through adolescent grade levels. PR: Math 1107 or higher, PHED 3323

**PHED 3325 Instructional Strategies..... 3 hrs.**  
*Writing Intensive*

This course is based on a motor development perspective with regard to the design of curriculum, instructional plans and assessment instruments. The scope of this course addresses instructional strategies across the developmental span of pre-kindergarten through the high school levels in a physical education setting. PR: ENGL 1102, PHED 3323

**PHED 3326 Early Psychomotor Development ..... 3 hrs.**

An analysis of the growth, development, and maturation of cognitive, psychomotor, affective and social sport behaviors of children. Students will explore activities pertinent to early childhood experiences.

**PHED 3342 Field Experience in Adapted Physical Education.....2-4 hrs.**

A field experience in working with institutions and organizations which provide services to the handicapped. Variable credit is dependent upon the nature and duration of the field experience. PR: PHED 3343.

**PHED 3343 Adapted Physical Education Activities..... 3hrs.**

This course is designed to provide an understanding of the areas of exceptionalities with an emphasis on the inclusion of students with high incidence disabilities in a physical activity environment. Instructional strategies in modifying physical activity to meet the needs of the individual are analyzed and applied in an activity lab setting. There will be practical experience in the public school setting. PR EDUC 2240. Spring only.

**PHED 3350 Physical Activity & Fitness Education ..... 3 hrs.**

This course introduces undergraduate students to the foundations and components of health-related physical activity and fitness programming across the lifespan. Emphasis is placed on applying theoretically and developmentally appropriate health-related fitness education concepts, training principles, assessments and physical activities in the instructional setting. PR: PHED 3312.

**PHED 3353 Field Experience in Sport Coaching.....2-4 hrs.**

Field experience will be provided to involve the student as an intern coach in either an intercollegiate or interscholastic sport program.

**PHED 3354 Sports Officiating ..... 2 hrs.**

This course involves the technical and theoretical aspects of sport officiating. The first-semester course will emphasize men's regulations common to the sport; the second semester will emphasize women's regulations common to the sport.

**PHED 3355 Scientific Foundations of Sport Coaching..... 4 hrs.**

The student will examine basic human physiological adaptations that occur during participation in sport activities. Basic mechanical laws and principles and their application to the performance of sport activities will be studied.

**PHED 3356 Administration and Coaching of Sport ..... 3 hrs.**

This course focuses on basic psychological, philosophical and technical knowledge and its relationship to the coaching of sport activities. Further emphasis will be placed on the principles and practices that are required in the planning, organization and administration of sport programs.

**PHED 3357 Sport & the Law..... 2 hrs.**

The course examines a variety of sport situations that help students appreciate the legal and ethical dilemmas facing those who participate in and manage the sport enterprise. Students will gain understanding of a wide range of legal principles applicable to the

role of the sport manager. A major focus of this course is the review of judicial opinions that frequently arise in cases involving organized sport. Required course; PR: BSBA 3306, Business Law I. Spring, Odd Years

**PHED 3358 Techniques of Sport Coaching..... 6 hrs.**

A presentation of sport skill techniques in combination with the theoretical aspects of sport coaching. A field experience in sport coaching will be provided through an internship in two selected intercollegiate or interscholastic sports programs.

**PHED 3360 Strength & Conditioning Theory and Practice ..... 3 hrs.**

This course examines the scientific principles and procedures involved in the assessment of physical fitness and exercise prescription. Special attention is given to understanding and implication of methods and techniques associated with the design of strength and conditioning programs to enhance human performance in sport and fitness. Additionally, this course is designed to prepare students for the nationally accredited Certified Strength and Conditioning Specialist (CSCS) certification exam. PR: PHED 3312 & PHED 3313.

**PHED 3365 Activities in Outdoor Education ..... 1-3 hrs.**

This course provides experience in outdoor education, including backpacking, canoe-camping, rock climbing and other activities. Each weekend will be spent at a different location to develop a variety of outdoor educational skills.

**PHED 3366 Field Experience in Outdoor Education . 1-3 hrs.**

This course offers extended outdoor educational experiences, including Appalachian Trail, river canoe- camping trips, and others. Credit will vary according to the length of the experience. PR: PHED 3365.

**PHED 3398 Sport Management Internship ..... 1-12 hrs.**

This course comprises a directed internship in a particular area of specialization. Students will complete the internship in cooperation with a community agency or business, clinic, or other appropriate organization. Direct observation and on-the-job experience, through active participation in ongoing programs, will enable students to broaden their scope beyond the classroom.

**PHED 4400 Research Methodology..... 3 hrs.**

Introductory course in the planning and implementation of research in the study of human performance. Students will consider the topics of variables and hypotheses, research designs, data collection, analysis and interpretation. PR:C or better in PHED 3316.

**PHED 4410 Research Design Seminar..... 3 hrs.**  
*Writing Intensive*

Survey of research in the historical, administrative, performance, motor development, philosophical, psychological and sociological issues in the current literature in the study of human movement. The student will select and design a research project in one of the specific areas. PR: C or better PHED 4400.

**PHED 4420 Exercise Science Internship ..... 3 hrs.**

The purpose of this internship is to provide students with the opportunity to gain practical experience in the field of fitness/wellness. This culminating experience allows students to apply theoretical knowledge to a "real-life" situation under the supervision of professionals currently in the fitness/wellness field. PR: All pre-4400-level coursework. PR: All pre-4400 level exercise science course work or Instructor Permission.

**PHED 4431 Methods and Materials in Teaching Physical Education..... 3 hrs.**

The focus of this course is the application of instructional strategies, classroom management techniques and performance-based assessment across different developmental levels in the public school setting. Practical experience in the public schools is required. PR: PHED 3325

**PHED 4450 Advanced Sport..... 1 hr.**

This course is opened only to students with sufficient background in the techniques and methods of an indicated sport. Credit is not to be awarded until the student has attained junior standing and can be received only once during a student's academic career. This course is for elective credit only and cannot be used to fulfill the requirements in any degree program.

**PHED 4998 Undergraduate Research..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## PHYSICAL SCIENCE

**PHSC 1199 Special Topics in Physical Science ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chair. Credits earned will be applicable as free electives in degree and certificate programs.

**PHSC 2201 Exosphere ..... 4 hrs.**

This course is designed to provide elementary education majors with an understanding of the interrelationships of matter and energy, and the earth in space. The Exosphere theme will focus primarily on astronomy and physics, while incorporating topics in earth science and biology. Class periods will be structured around the three-stage learning cycle, modeling constructivist teaching methods. Four hours of lecture/ discussion/activities per week. PR: BIOL 1104 with a C or better and admission to Elementary Education. Fall semester only.

**PHSC 2202 Geosphere..... 4 hrs.**

This course is designed to provide elementary education majors with an understanding of the dynamic earth and its matter. Students will primarily focus on earth science and chemistry topics, while integrating biology concepts and physics topics such as balanced and unbalanced forces, magnetism, friction, wave propagation and structure. Four hours of lecture/discussion/activities per week. PR: BIOL 1104 with a C or better and admission to Elementary Education. Spring semester only.

**PHSC 4412 Elementary Science Methods..... 3 hrs.**

This course is designed to prepare pre-service elementary school teachers to teach science. Students will work with equity, authentic assessment, technology integration, safety, and science pedagogy including inquiry, constructivism and problem-based learning. Students will conduct a learning cycle-based lesson with elementary students during an after-school program, and will construct an integrated thematic unit for use in an elementary classroom. PR: EDUC 2260, PHSC 2201, 2202, all with a C or better.

**PHSC 4430 Science Integration Seminar..... 1 hr.**

This course is designed for students preparing to teach general science in middle and high schools. Teacher candidates will investigate the nature of science, the processes of science, and the inter-related nature of science disciplines. They will explore the science theme of Earth's Oceans to investigate the geoscience, biology, chemistry, physics content as it pertains to that theme. In addition, students will develop an original standards-based project-based module around an oceanography theme. Students should have completed a substantial portion of their general science coursework before enrolling in this course (e.g. PHYS 1101, GEOL 1101, CHEM 1105, and BIOL 1106). PR: Junior status and admission to Teacher Education.

**PHSC 4431 Methods and Materials in Teaching Science ..... 3 hrs.**

The course is designed for students preparing to teach science at the middle or secondary-school level. Students will develop and teach a science lesson to junior high school children in the Science Enrichment Program. They will become familiar with science curriculum in the middle and secondary schools, science teaching resources, laboratory safety, test construction and classroom management skills, and will develop an instruction unit. PR: EDUC 2260 or EDUC 6306; Spring semester only.

**PHSC 4998 Undergraduate Research..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## PHYSICS

*PLEASE NOTE:*

*PHYS 1105/1106 substitutes for PHYS 1101/1102 in all programs. PHYS 1105/1106 is calculus based and is a more appropriate level of study than PHYS 1101/1102 for science majors and some technology majors.*

**~ PHYS 1101 S-FSU Introduction to Physics I..... 4 hrs.**

An introduction to elementary principles of mechanics, sound, and heat. A three-hour laboratory period each week supplements the three lecture-recitation periods. PR: MATH 1102 or MATH 1115 or MATH 1185 or MATH 1190 or MATH ACT 24 or MATH SAT 560 or Compass 67.

**~ PHYS 1102 S-FSU Introduction to Physics II..... 4 hrs.**

A continuation of PHYS 1101; includes a study of electricity and magnetism, light and basic atomic and nuclear physics. PR: PHYS 1101.

**~ PHYS 1105 S-FSU Principles of Physics I..... 5 hrs.**

Students are instructed in the elementary principles and calculus-based mathematical descriptions of matter and energy, including mechanics (linear and rotational motion, force, work and energy, harmonic motion), fluids, wave motion and thermal physics. A three-hour lab period supplements a four-hour weekly lecture. PR: MATH 1185 or MATH 1190 or TECH 2290 or MATH ACT 28 or MATH SAT 630 or Compass 89.

**~ PHYS 1106 S-FSU Principles of Physics II..... 5 hrs.**

Students are instructed in the elementary principles and calculus-based mathematical descriptions of electricity and magnetism, light, optics and modern physics. A three-hour lab period supplements the four-hour weekly lecture. PR: PHYS 1105.

**PHYS 1199 Special Topics in Physics ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the department chair. Credits earned will be applicable as free electives in degree and certificate programs.

**PHYS 2201 Demonstrations in Physics ..... 2 hrs.**

This course covers effective use of everyday materials to illustrate physical phenomena, experience with a variety of lecture equipment, and practice in planning and executing demonstrations. It is designed to serve teachers in both the elementary and secondary schools. PR: Program Restriction: Physics teaching specialization.

**PHYS 2202 Astronomy ..... 3 hrs.**

A study of the physical properties of the solar system, stars

and galaxies, including the concepts of motion, space and time. Occasional night sessions. PR: PHYS 1102 or PHYS 1106.

**PHYS 3211 Intermediate Physics IA - Newtonian Mechanics..... 3 hrs.**

Students taking this course will build, examine and utilize scientific models of classical mechanics to conceptualize and understand the natural phenomena of motion and matter interactions. Students will apply these calculus-based models to a wide range of single and many-particle systems characterized by mass, electrical charge, atomic structure, and constant and variable interactions. Models include the principles of linear and angular momentum, Newton's laws, waves and oscillatory motion. PR: PHYS 1102 or 1106 and MATH 1186 or 3315 or TECH 3300.

**PHYS 3212 Intermediate Physics IB - Energy Perspec. .... 3 hrs.**

Students taking this course will build, examine and utilize energy-based scientific models to conceptualize and understand the natural phenomena of motion and states of matter from an energy perspective. Students will apply these calculus-based models to systems involving gravitational, electric, atomic, and nuclear interactions. Models include the mechanical, thermal and electromagnetic energy of these systems. PR:PHYS 3211(or at the same time with instructor's permission).

**PHYS 3221 Intermediate Physics IIA - Electric Interactions..... 3 hrs.**

Students taking this course will build, examine and utilize the scientific models of classical electricity and magnetism to conceptualize and understand the natural phenomena of electric interactions on a macroscopic level. Students will apply these calculus-based models to various important electrical systems and circuits. PR: PHYS 3212.

**PHYS 3222 Intermediate Physics IIB - Electromagnetic Interactions and Semiconductor Devices ..... 3 hrs.**

Students taking this course will build, examine and utilize the scientific models of magnetic field, electromagnetic radiation and electron energy levels in solids to conceptualize and understand magnetic and electromagnetic phenomena, quantum phenomena in solids, and transistors. Students will apply these calculus-based models to electromagnetic interference, particle-wave duality, and semiconductor devices and circuits. PR:(or at the same time with instructor's permission): PHYS 3221.

**PHYS 3230 Intermediate Physics Laboratory ..... 2 hrs.**

Students taking this course will systematically investigate aspects of the models and concepts of PHYS 3211-2 and 3221-2 through a set of laboratory experiences. The labs include preliminary research, and lab setups, analysis and reporting. Student reports will include oral presentations of their preliminary research and investigations, and demonstrations of their lab set-ups. PR: (or at the same time with instructor's permission): PHYS 3221.

**PHYS 3310 Electricity and Electronics ..... 4 hrs.**

A review of elementary direct and alternating current theory and transient responses of electrical components. Students are introduced to basic theory of vacuum tubes, semiconductors, amplifiers principles, and logic circuits. Two hours of laboratory and three hours of lecture each week. PR: PHYS 1102 or PHYS 1106.

**PHYS 3325 Advanced Physics I..... 4 hrs.**

An in-depth, rigorous, calculus-based treatment of thermodynamics, mechanics (including Newtonian mechanics, one-dimensional dynamics, oscillatory motion, vector analysis and central forces) and wave motion. A two-hour lab period supplements the three-hour weekly lecture. The lab component provides open-ended, inquiry-based investigations along with greater responsibility for interpreting, utilizing and communicating results in the classroom. PR: (PHYS 1102 or PHYS 1106) AND (MATH 1186 or MATH 3315 or TECH 3300)

**PHYS 3335 Advanced Physics II..... 4 hrs.**

An in-depth, rigorous, calculus-based treatment of modern

physics, including relativity, particle-wave duality, electromagnetic radiation, Schrodinger's wave equation, atomic theory and nuclear physics. A two-hour lab period supplements the three-hour weekly lecture. The lab component provides open-ended, inquiry-based investigations along with greater responsibility for interpreting, utilizing and communicating results in the classroom. PR: (PHYS 1102 or PHYS 1106) AND (MATH 1186 or MATH 3315 or TECH 3300)

**PHYS 3340 Special Problems..... 2 hrs.**

Individual studies of problems of special interest in the field of physics, for advanced students. PR: (PHYS 1102 or PHYS 1106) AND (MATH 1186 or MATH 3315 or TECH 3300)

**PHYS 3350 Mathematical Methods of Physics..... 3 hrs.**

This course deals with the applications of vectors, vector algebra, vector analysis, differential calculus, integral calculus and differential equations to problems in physics and related scientific fields. PR: (PHYS 1102 or PHYS 1106) AND (MATH 1186 or MATH 3315 or TECH 3300)

**PHYS 4998 Undergraduate Research..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## POLITICAL SCIENCE

**~ POLI 1103 S-FSU American Government..... 3 hrs.**

A survey of the American political system, dealing particularly with the form and function of the federal system.

**~ POLI 2200 S-FSU Introduction to Political Science ..... 3 hrs.**

A study of the fundamentals of politics and key issues, the concept of the state and its agent, government, types of political authority, the scope of governmental activities and the problem of world order.

**POLI 2201 S-FSU Principles of International Relations ..... 3 hrs.**

A study designed to acquaint the student with the theory and practice of international relations.

**POLI 2203 S-FSU Comparative Government ..... 3 hrs.**

This survey course is designed to foster a broad general acquaintance with the political institutions and government practices of certain nations.

**POLI 2206 Public Planning in Appalachia..... 3 hrs.**

A study of federal-state relations, regional planning and development administration in West Virginia, the Appalachian Regional Commission, public program analysis and evaluation and images and realities of public planning in West Virginia.

**POLI 2207 Public Budgeting and Government Finance..... 3 hrs.**

This course analyzes the political, economic and social aspects of budgeting, with particular emphasis on their relationships in West Virginia state and local government.

**POLI 2209 Selected Topics in Political Science..... 3 hrs.**

An issue-oriented study of some germane matter in public administration. The course involves an extensive commitment to a single issue or policy area over the course of the semester.

**POLI 2240 Nonparametric Statistics ..... 3 hrs.**

This course introduces the student to the fundamental principles of descriptive and inferential statistics, with an emphasis on the analysis of nominal and ordinal data. Topics include nonparametric tests of significance, scaling, coding and a discussion of hypothesis construction. This course should be taken during the sophomore year. (Credit in either Political Science or Sociology.) PR is one of the following, with a grade of C or better:

- (a) MATH 1100
- (b) MATH 1107
- (c) MATH 1112
- (d) MATH 1115

**POLI 3300 Public Administration ..... 3 hrs.**

This upper division course explores the politics of public administration. This course studies the origins, structures, and processes of government administration with a focus on administrative politics, law and ethics, organizational theory and technical fields, such as budgeting, planning, and personnel. Public administration involves the bureaucracy in the implementation of politics often authored by other institutions of government (the legislative, executive, and judicial branches).

**POLI 3301 Comparative Public Administration ..... 3 hrs.**

Utilizing the techniques of comparative analysis, this course explores the theory and practice of public administration in various cultures and political systems. Attention is centered on the practices of administration in American national, state and local governmental settings.

**POLI 3302 State and Local Government ..... 3 hrs.**

This course is designed to explore American state and local government structures and functions while focusing on constitutions, institutions, instruments of popular control, and intergovernmental relations. This course will examine a number of topics having to do with state and local politics with an emphasis on comparing states and extra attention on the state and local government in West Virginia.

**POLI 3303 Political Parties ..... 3 hrs.**

A study of the origins, growth and development of American political parties. PR: POLI 1103.

**POLI 3304 American Constitutional Government and Law ..... 3 hrs.**

This course examines the development, interpretation and application of basic principles of constitutional law in the United States. The course will be concerned with the definition, extents and limitations of governmental powers and rights of Americans. PR: POLI 1103.

**POLI 3305 American Political Theory ..... 3 hrs.**

A study of the political literature which has given expression to the ideas of individual liberty enjoyed by American citizens.

**POLI 3306 The American Presidency ..... 3 hrs.**

This course will introduce the student to the institution of the American presidency and will also act as a comprehensive survey of the presidency. Students will examine several aspects of the office and a variety of views about the presidency. PR: POLI 1103.

**POLI 3307 Congress and the Legislative Process ..... 3 hrs.**

This course introduces the student to the institution of the Congress and the legislative process. Topics include the internal processes and structure of Congress, Congress-constituent connections and its relationship with other branches and levels of government. PR: POLI 1103.

**POLI 3308 Public Personnel Administration ..... 3 hrs.**

An examination of public personnel administration, with emphasis on such matters as the merit system, the historical development of public service, staffing, training, classification, the rights and obligations of public employees and the human-relations aspects of public management.

**POLI 3310 Recent Political Theory ..... 3 hrs.**

An analysis of the development and theoretical foundations of three major political ideologies of the nineteenth and twentieth centuries: Communism, fascism, and democracy.

**POLI 3311 Global Affairs ..... 3 hrs.**

This course analyzes major global issues facing the world today, such as human rights, terrorism, armed conflict, and peace. This course will also explore the politics of scarcity and security of energy resources, environment, economy, food and water resources, demographics and population growth, technology and information.

**POLI 3321 US Foreign Policy ..... 3 hrs.**

This course explores U.S. foreign policy formulation and considers policies by areas and functions. PR: POLI 1103.

**POLI 3340 Political Science Research Methods ..... 3 hrs.***Writing Intensive*

This course is designed to introduce the student to the methods of conducting replicable research in political science. Topics include research design, literature review, measurement criteria, data gathering, analysis and validity. The course will consist of lectures and exercises in the classroom, library and computer lab. PR: ENGL 1102.

**POLI 3350 International Law and Organizations ..... 3 hrs.**

A study of the structure and functions of international institutions and legal processes involved in the effort to maintain peace and security in the world.

**POLI 3360 Government and Politics of the Far East .. 3 hrs.**

A study of political systems and developments in the countries of Communist and Nationalist China, South and North Korea and Japan, with emphasis on China. Students will consider such relevant aspects as the historical foundation, economic problems and foreign policy of the state.

**POLI 3370 World Religions and Politics ..... 3 hrs.**

This course will undertake a systematic and rigorous investigation of the relationship between politics and religion in a variety of countries around the world. Religion plays an important and contentious role in world politics and this course will analyze the philosophical thought underlying major world religions.

**POLI 3393 Future Global Crises ..... 3 hrs.**

A team-taught, multi-disciplinary study of potential developments in the world. Areas of concentration are tailored to students' interests. Credit in Technology or Psychology.

**POLI 4404 Civil Liberties in the US ..... 3 hrs.**

A study of the nature and substance of civil liberties in the United States. The philosophy underlying the Bill of Rights will be analyzed and students will discuss the development of each of the great freedoms protected therein, such as free speech, free press, and free religion among others. Particular attention will be given to how the Supreme Court has interpreted and applied the guarantees contained within the Bill of Rights in specific instances. PR: POLI 1103.

**POLI 4405 Terrorism ..... 3 hrs.**

A course designed to give the student an understanding of the problem of terrorism and political violence. The course will define terrorism, examine its origins, characteristics, nature and trends, analyze in detail various terrorist organizations and address selected problems in the response to terrorism. Credit in Political Science or Criminal Justice.

**POLI 4406 International Problems ..... 3 hrs.**

This course covers the foreign policies of several nations and the machinery established for the peaceful adjudications of international differences.

**POLI 4410 Problems in American Government ..... 3 hrs.**

A study of current problems affecting the structure and function of American national government. PR: POLI 1103.

**POLI 4411, 4412, 4413 Area Studies..... 3 hrs.**

Studies of selected areas or regions of the world, conducted on an interdisciplinary basis. The area selected and the time span studied will be determined by the instructor. PR: Instructor approval required if offered as an arranged class; no prerequisite required if class meets regularly.

**POLI 4450 Practicum ..... 1-12 hrs.**

A professional internship with a government or political agency, designed to give students pertinent experience in a particular field of political science. PR: POLI 1103, Instructor approval required.

**POLI 4470 Seminar in Political Science ..... 3 hrs.**

A survey of recent developments in the practice and theory of politics, with an emphasis on independent study. PR: Instructor approval required.

**POLI 4499 Special Topics in Political Science ..... 1-12 hrs.**

Studies in special selected topics to be determined by the instructor and approved by the program advisor. Individual students with specific interests work on a tutorial basis with an appropriate professor.

**POLI 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for students to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**PSYCHOLOGY****~ PSYC 1101 S-FSU Introduction to Psychology..... 3 hrs.**

A general overview of the science of psychology. Topics include science methodology, life-span psychology, personality theory, consciousness, stress, health and coping, learning theory, psychological disorders, biopsychology, sensation, cognition and memory and social psychology.

**PSYC 1150 Introduction to Healthcare Professions .... 3 hrs.**

This course is designed to introduce students to the basic tenets of health and well-being, healthcare settings, and a variety of healthcare professions. Students will learn about different health professions, how health professions impact health and well-being, and the different settings in which healthcare professionals work. Emphasis will be placed on how roles within healthcare settings intersect to support the goal of personal and public health. (PSYC 1150 is the same course as ALLH 1150 and SOCY 1150; students may receive credit for the course only once).

**PSYC 1160 Exploration of Healthcare Professions..... 2 hrs.**

Students will explore healthcare settings through service learning projects. Students will partner with community groups/agencies that provide health-related services to citizens of North Central WV and beyond. Emphasis will be placed on teamwork, collaboration, and the achievement of personal and public health goals. This is a 2 credit course. (PSYC 1160 is the same course as ALLH 1160 and SOCY 1160; students may receive credit for the course only once).

PR or CR: ALLH 1150 or SOCY 1150 or PSYC 1150

**PSYC 2220 History and Systems of Psychology ..... 3 hrs.**

Traces the development of the science of psychology from its origins in philosophy, physiology and medicine to the modern era. PR: PSYC 1101.

**PSYC 2230 Social Psychology (Same as SOCY 2230)..... 3 hrs.**

This course covers the scientific study of how individuals think, feel, and behave in a social context. Topics include the self, stereotypes, prejudice and discrimination, attitudes, conformity, group processes, attraction, helping and aggression. Same course as SOCY 2230 Social Psychology; also listed as SOCY 2230 Social Psychology. Credit may be received for either PSYC 2230 or SOCY 2230, but not both. PR: PSYC 1101 or SOCY 1110.

**PSYC 2240 Behavioral Statistics (Same as SOCY 2240)..... 3 hrs.**

This course covers elementary statistical description and analysis, as employed particularly in the behavioral sciences. Same course as SOCY 2240 Behavioral Statistics. Credit may be received for either SOCY 2240 or PSYC 2240, but not both. PR: MATH 1107 or higher.

**PSYC 2250 S-FSU Community Psychology..... 3 hrs.**

This course consists of lectures, discussion, readings and field observation designed to acquaint the student with the philosophy, technique and theory of community mental health. PR: PSYC 1101.

**PSYC 2260 Industrial and Personnel Psychology..... 3 hrs.**

A study of psychological concepts and methods as applied to personnel management, human-factors engineering, employee selection, motivation, training, productivity, consumer psychology and human relations. PR: PSYC 1101.

**PSYC 3300 Abnormal Psychology ..... 3 hrs.**

A survey of the antecedents, diagnosis, treatment and prevention of various maladjustments and personality disturbances. PR: PSYC 1101.

**PSYC 3305 Research Methods ..... 4 hrs.**

Research methods provides an introduction to: 1) the scientific method used in the social sciences; 2) the design and control of research experiments; 3) the statistical analysis of data; 4) the communication of research results; and 4)an introduction to the application of ethics in the practice of research.. Various approaches to conducting research in psychology will be presented including observational, relational, and experimental. This course includes three hours of instruction and one hour of Lab. PR: PSYC 2240 or SOCY 2240.

**PSYC 3310 Experimental Psychology..... 3 hrs.**

An introduction to the procedures of experimental research, design and evaluation, using laboratory techniques. PR: PSYC 2240 or SOCY 2240.

**PSYC 3320 Sensation and Perception ..... 3 hrs.**

An examination of the classical concepts in sensation and perception and of the resulting psycho-physical data for each of the major senses, with an emphasis on vision and audition. Psychology and modern perceptual formulations are viewed through the lens of empirical data. PR: PSYC 1101.

**PSYC 3330 Developmental Psychology..... 3 hrs.**

A longitudinal study of behavior change and development through the life span of the individual, from conception through the end of life. PR: PSYC 1101.

**PSYC 3350 Biopsychology..... 3 hrs.**

This course focuses on the basic development, structure and function of the central nervous system, autonomic nervous system and endocrine system. The emphasis is on the relationship between physiological functioning and the behavior of the intact organism. PR: PSYC 1101.

**PSYC 3360 Cognitive Psychology ..... 3 hrs.**

The study of thinking, memory, perception, cognition and verbal behavior. PR: PSYC 1101.

**PSYC 3370 Theories of Learning ..... 3 hrs.**

A study of the experimental procedures, data and concepts dealing with changes in behavior that are usually defined as learning.

The emphasis is on a detailed analysis of various theories of learning and contemporary approaches. PR: PSYC 1101.

**PSYC 3390 Foundations of Psychology..... 3 hrs.**  
*Writing Intensive*

A detailed study of the methodological and philosophical issues involved in the analysis of behavior. The course objectives are to provide insight into the nature of applied scientific research, to foster the ability to construct empirical hypotheses, to develop facility in designing experimental tests of hypotheses, to promote effective reading and evaluation of psychological research and to encourage professional writing and speaking about psychological theory and experimentation. PR: ENGL 1102, PSYC 3305.

**PSYC 3393 Future Global Crises ..... 3 hrs.**

A team-taught, multi-disciplinary study of potential developments in the world. Areas of concentration are tailored to students' interests. (Credit in Political Science or Technology). PR: PSYC 1101

**PSYC 3399 Special Topics in Psychology ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the School's chairperson. Credits earned will be applicable as free electives in degree and certificate programs. PR: PSYC 1101

**PSYC 4400 Psychometrics ..... 3 hrs.**

This course addresses the general theory of measurement as involved in various areas of psychology, such as psychological tests, attitude scales, psychophysics and qualified behavior theory. PR: PSYC 2240 or SOC 2240.

**PSYC 4410 Theories of Personality ..... 3 hrs.**

A critical consideration of the major theories of personality, including Psychodynamic, Cognitive, Cognitive Behavioral, Behavioral, Existential, Trait, Adlerian and Gestalt theory. The basis of personality theoretical development will also be emphasized. PR: PSYC 1101.

**PSYC 4460 Seminar .....3-6 hrs.**

The discussion of specific research topics as reported in contemporary psychological literature is emphasized in this particular course. It is designed specifically to promote students' analytical thinking and presentation, as it pertains to current research investigation. PR: PSYC 1101. May be repeated once.

**PSCY 4470 Intervention Techniques and Applications 3 hrs.**

A detailed study of operant techniques and methodologies, from the experimental laboratory to the community at large. Emphasis is placed on the development of skills in the observation, manipulation and evaluation of various behavior-control techniques in the light of ethical concerns. PR: PSYC 1101 and PSCY 4410.

**PSYC 4480 Directed Studies ..... 1-3 hrs.**

Intensive study and reading on a topic selected by the student and instructor. Requirements and credit must be decided before registration through instructor-student consultation. Repeatable. Six-hour limit. PR: PSYC 1101 and Instructor approval.

**PSYC 4485 Advanced Psychometrics..... 3 hrs.**

This course covers personnel selection and placement, as well as a more advanced treatment of reliability and validity. Skills in these areas are developed. PR: 4400 and Instructor approval required.

**PSYC 4487 Practicum I ..... 3 hrs.**

**PSYC 4489 Practicum II ..... 3 hrs.**

These Practica afford an application of knowledge and techniques developed within the Industrial-Personnel Program. Students work under supervision in participating businesses, industries and institutions. The remaining time is spent in lectures, discussion and reading to enhance the student's training. PR: Instructor approval required.

**PSYC 4490 Directed Research..... 1-3 hrs.**

This course provides an opportunity for work on individual library or experimental projects. Requirements, including a thesis, and credit must be decided before registration through instructor-student consultation. Repeatable. Six-hour limit. PR: PSYC 1101 and Instructor approval required.

**PSYC 4491 Psychopathology of Childhood and Adolescence ..... 3 hrs.**

Problems of etiology, diagnosis and treatment of maladjustment in childhood and adolescence. Students will analyze and discuss problems like drug addiction and juvenile delinquency.

**PSYC 4493 The Psychology of Aging ..... 3 hrs.**

A study of problems facing the aging. The psychological, social and physiological aspects of aging and methods of treatment are analyzed and discussed.

**PSYC 4494 Interpersonal Dynamics ..... 3 hrs.**

The main objective of this course is to develop techniques and basic skills required for effective operation in psychological settings such as interviews, role-playing, and facilitation of dyadic and small "dynamics-centered" group interaction. These diagnostic and therapeutic methods are experienced and discussed in terms of various psychological theories of communication. PR: PSYC 1101 and Instructor approval required.

**PSYC 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## RECREATION

**RECR 1141 Introduction to Recreation ..... 3 hrs.**

This lecture-based course introduces the historical and philosophical foundations of leisure and recreation are introduced. Students will cultivate the knowledge needed to develop concepts concerning recreation, the socio-economic movement affecting the growth and development of recreation, the economic services and the various areas of facilities used in recreation.

**RECR 1142 Social Recreation ..... 3 hrs.**

This course is designed to present material and information necessary to adequately conduct social recreation in clubs, churches, campus, playgrounds and recreation centers. Students will be involved with planning, programming, and conducting social recreational activities.

**RECR 1143 Outdoor Recreation ..... 3 hrs.**

An examination of the history and development of outdoor recreation, conservation and organized camping. Opportunities are provided to learn camp craft and leadership skills and techniques through field trips and outings.

**RECR 1150 Introduction to Rock Climbing ..... 2 hrs.**

This course will focus on the basics of safe and responsible rock climbing. Topics include knots, equipment and care, belaying, rappelling, anchor building, and climbing techniques. Students will be required to participate in rappelling, rock climbing, belaying, and anchor building activities.

**RECR 1151 Backcountry Living Skills ..... 2 hrs.**

This Recreation course is designed to provide: physical, mental, and social challenges that will introduce the participants to the basic concepts and techniques for recreating and surviving in the

backcountry using Leave No Trace methods. Students will actively engage in backpacking, camping, and survival activities in order to further develop hard skills and environmental ethics.

**RECR 1153 Seminar in Outdoor Recreation ..... 2 hrs.**

This course provides an advanced experience in the organization and presentation of various outdoor programs. Participation includes a number of weekend and extended outdoor experiences, plus field studies in area outdoor facilities. PR: RECR 1143.

**RECR 1154 Recreation Field Work I ..... 2 hrs.**

The student will become acquainted with the nature and diversity of available recreation programs and services. The student will be assigned to recreational settings distinctly different in philosophy, organizational structure and clientele served.

**RECR 1155 Recreation Field Work II ..... 2 hrs.**

A continuation of RECR 1154, this sequence of field work courses is developmental. Progress develops from a dependent position to an interdependent position.

**RECR 1177 Introduction to Adventure  
Water Sports..... 2 hrs.**

This course provides an introduction to various adventure water activities including one or all of the following: canoeing, kayaking and white water rafting. Students will investigate trip planning, water safety, "Leave No Trace" ethics, and equipment use and care. Students will be introduced to these activities through experiential learning in the swimming pool and trips on regional rivers. All students must pass a basic swim test to show competency and ease in the water (Ability to swim 50 yards and tread water for 5 minutes required).

**RECR 1178 Scuba Diving "Open Water  
Certification" ..... 2 hrs.**

This course will cover all necessary requirements to obtain the open water certification. PR: PHED 2232 or 2233 or 3381.

**RECR 1188 Introduction to Adventure  
Winter Sports..... 2 hrs.**

This course provides an introduction to various adventure water activities including one or all of the following: Cross country skiing, Snow Shoeing, Downhill Skiing, Snowboarding, Winter Camping and Mountaineering. Students will be introduced to these activities through experiential learning in and around campus and trips to regional ski and Nordic centers.

**RECR 1199 Special Topics in Recreation..... 1-12 hrs.**

Special selected topics will be studied, to be determined by the instructor and approved by the School's chairman. Credits earned will be applicable as free electives in degree and certificate programs.

**RECR 2220 Program Planning and Organization..... 3 hrs.**

A presentation of the underlying principles for effective recreation planning. Attention is given to the variety of programs associated with recreation and the interests of the participants. Students will also examine methods of planning, organization, leadership, facilities and equipment. Independent Study. Instructor Approval.

**RECR 2250 Select Topics in Certification..... 2 hrs.**

In this course, students will acquire a certification "of their choice" related to the field of outdoor recreation. The students will be required to document 30 hours of instruction and work experience and accomplishment of the desired certification. Choice of certification must be preapproved by the chair or instructor.

**RECR 3300 Intramural Administration..... 3 hrs.**

This course provides administrative experience in directing and supervising institutional physical recreational programs. The course will be offered both semesters on an arranged basis. (The course cannot replace or be used in the fulfillment of other program requirements.) Junior standing.

**RECR 3301 Day Camp Administration ..... 3 hrs.**

In this course, students will gain administrative experiences in directing and supervising summer day camp programs (Falcon Camp). This course will be offered on an arranged basis during the first and second summer sessions only. Junior standing.

**RECR 3330 Group Leadership..... 3 hrs.**

This course presents information on group dynamics, leadership styles, activity facilitation, risk management, liability issues, and planning. Students will obtain practical knowledge of group situations and principles necessary for effective leadership. Opportunities to develop their own leadership skills through peer teaching will be provided.

**RECR 3340 Internship/Camp Administration..... 3 hrs.**

In this course, students will gain administrative experiences in directing and supervising summer day camp programs (Falcon Camp) or choose an internship that provides an equal or greater learning and work experience. Internships must be preapproved by instructor. Students will be required to obtain an internship in the field of recreation approved by instructor. Students will be required to fulfill 120 hours of documented work experience from their supervisor. Junior standing. PR: RECR 1151 and 3330.

## SAFETY

**SFTY 1100 Safety and Environmental  
Components of Industry ..... 3 hrs.**

This course provides an introduction to OSHA and EPA regulations pertaining to general and construction industry record keeping, OSHA/EPA inspection, fire, chemical exposure, most frequent violations and other topics.

**SFTY 1150 Safety Management and Concepts in  
Accident Prevention..... 3 hrs.**

An introductory examination of safety management principles, with an emphasis on recordkeeping, hazard identification, product safety and behavioral-based safety, as related to accident prevention. PR: SFTY 1100, MATH 1101.

**SFTY 2210 S-FSU Disaster Preparedness and  
Emergency Systems ..... 3 hrs.**

A study of the major elements of disasters and emergencies, including systematic and organized methods of preparedness planning for these events.

**SFTY 2250 Safety Law and Compliance ..... 3 hrs.**

This course is a study of federal and state regulations governing general industry and product safety, with an emphasis on various legal problems related to OSHA and general industry. PR: SFTY 1100.

**SFTY 2280 Construction Safety & Law ..... 3 hrs.**

This course covers federal construction regulations and the case law surrounding the construction industry. PR: SFTY 2250, MATH 1102.

**SFTY 2290 S-FSU Industrial Hygiene and  
Toxicology..... 4 hrs.**

This course covers the methods for anticipating, recognizing, evaluating and controlling exposures in the workplace while exploring the toxicological effects of contaminants on workforces. PR: SFTY 1150, CHEM 1102, SFTY 2250.

**SFTY 2291 Environmental Engineering Technology:  
Hazardous Waste ..... 4 hrs.**

This class provides a comprehensive study of federal/state regulations and legislation pertaining to the Environmental Protection Agency. Coverage shall include EPCRA, TSCA, RCRA, CWA and CAA as related to generation, storage and disposal of chemicals and waste in industry. PR: CHEM 1102, PR or CR: SFTY 2250.

**SFTY 3300 Industrial Hygiene Applications and Practices ..... 4 hrs.***Writing Intensive*

A continuation of SFTY 2290, this course allows students to explore and apply the industrial hygiene sampling methodologies applicable to different chemical, biological and thermal exposures in the workplace. This is a hands-on class, focusing on the utilization of sampling equipment. It satisfies the Writing Intensive requirement for General Studies. PR: ENGL 1102, SFTY 2290.

**SFTY 3310 Ergonomics & Human Factors..... 3 hrs.**

This class will explore the interaction between the design of the workplace and the worker, with an emphasis on anatomical/physiological stressors and common work-related musculoskeletal disorders. It will also focus on redesign and elimination of said stressors and cognitive factors related to the work environment. PR: SFTY 1100, CHEM 1102, MATH 1102, HLCA 1170 and HLCA 1171.

**SFTY 3355 Air & Water Pollution ..... 3 hrs.**

This course is designed as a continuation of SFTY 2291 Environmental Engineering Technology: Hazardous Waste. This course will extend the student's knowledge in environmental regulations related to the CAA and CWA. Students will also be introduced to various control technologies related to air and water pollution. PR: SFTY 2291.

**SFTY 3360 S-FSU Fire Prevention ..... 3 hrs.**

An examination of fire prevention, detection and suppression. The NFPA Lifesafety Code will be addressed, as well as basic water supply and hydraulics, including distribution systems. PR: SFTY 1100, CHEM 1102.

**SFTY 4400 Safety Engineering Design ..... 3 hrs.**

This course covers design engineering and engineering countermeasures needed to minimize losses incurred by man and the environment. PR: SFTY 2250, PHYS 1102.

**SFTY 4415 Safety Internship ..... 3 hrs.**

Students shall complete an advisor-approved safety internship. Responsibilities must be in the field of employee safety and/or health. PR: SFTY 2290 and instructor approval required.

**SFTY 4420 System Safety and Management..... 3 hrs.**

A study of System Safety methodologies and Process Safety management, with an emphasis on safety audits, safety management, risk assessment, loss control and statistical applications. PR: MATH 1113. CR: SFTY 4400.

**SFTY 4480 Application of Safety Strategies..... 4hrs.**

This course is designed to serve as a capstone course for Occupational Safety majors. Students are required to successfully complete an approved senior project in the field of Safety, Health or Environmental. This course requires successful student participation on teams, in presentations, employee training and professional written communications. PR: SFTY SFTY 4420.

**SFTY 4998 Undergraduate Research .....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**SCIENCE****SCIE 1100 Human Biology..... 4 hrs.**

Human Biology is an introductory course intended for non-science majors and is specifically designed to enable students to relate human structure and function to everyday life. Topics include

basic human genetics, structure and function of the human body, relationship of humans to their environment, and public health. Current topics related to human biology are discussed throughout the semester. This course includes 3 hours of lecture and 2 hours of lab per week.

**SCIE 1103 Science That Matters..... 4 hrs.**

Socially-relevant science topics are investigated in an interdisciplinary (biology, chemistry, earth and space science, and physics), activities-based, modular format. Two-to three-week modules present both the process and content of science as a vital part of major contemporary issues. In each module, students explore the underlying science and employ collaborative learning and evidence-based analysis to understand the topic and formulate personal judgments about the issue. The course is heavily web-based, with no printed text, and meets for two-hour class periods twice a week.

**SCIE 1105 Environmental Science..... 4 hrs.**

This course meets twice a week with lecture and activity based learning during each time period. The course introduces students to the biotic and abiotic world and human's impact on it. Students will review our current understanding of biology, chemistry and geology and learn how these concepts are applied to environmental science. This knowledge will be used to address current issues in environmental science dealing with specific problems. These activities will be based on real world environmental problems ranging from those of indigenous peoples to global warming. Individuals completing the course will have gained insight into human impact on the environment through an understanding of physical, chemical, and biological principles. They will also develop a greater understanding of human, cultural and societal concerns as related to the environment and will be more able to appreciate cost and benefits related to them.

**SCIE 1107 Geographic Information Systems ..... 4 hrs.**

This course meets two times per week and is a flipped (Lecture material is covered by students outside of class and applied in class), application based course requiring a working knowledge of computer applications such as Excel and Windows Explorer. This is an interdisciplinary course designed to introduce students to spatial thinking and its application through the use of Geographic Information Systems (GIS) software. Students will be introduced to basic concepts in cartography including the role of other spatial technologies (aerial photography, remote sensing, and Global Positioning Systems - GPS) as they relate to GIS applications. Students will also learn how to find data to answer specific questions by using GIS software and completing a semester project using GIS to address an issue of interest to them, and applicable to their fields of endeavor. Lecture content is provided online in the form of Power Point files and through readings from the text. Students are quizzed over this content online before working over it in class. Class time is used to learn Software application, complete exercises and work on a semester project.

**SCIE 1110 S-FSU Chemistry of Life ..... 4 hrs.**

An introduction to scientific principles, designed to provide an understanding of the chemistry of biological systems. The intent of this course is to foster an appreciation for the chemical nature of life as it relates to health, diagnostics and the treatment of human diseases. It will consist of one two-hour class period and one two-hour activity period per week. PR: Math ACT score of 19 or higher, SAT 460, COMPASS 36, or MATH 0095.

**SCIE 1115 Earth and Sky..... 4 hrs.**

For non-science majors, this course is designed to give students a greater appreciation of the world around them. The course focuses on observable, useful science by an integrated approach of meteorology and astronomy from the perspective of Earth. Topics cover the Earth's formation, its weather, and its place in the Universe. Students investigate both the process and content of science through activities, collaborative learning, guest speakers, and local field trips. Concepts are applied to weather and astronomy observations as well as critical environmental issues. The course uses a printed text and meets for two-hour class periods twice a week.

**SCIE 1120 Introduction to Meteorology ..... 4 hrs.**

A non-technical treatment of the fundamentals of modern meteorology and the effects of weather and climate. This course gives a broad overview of the basics of meteorology, including temperature, air pressure, relative humidity, wind speed and direction, cloud formation, and atmospheric stability. This will provide a clear understanding of the "behind the scenes" work of the daily weather patterns.

**SCIE 1130 The Science of Disasters ..... 4 hrs.**

This course is designed to engage students interested in the science behind geological and many human-made disasters. This course introduces geology with special emphasis on geological processes such as plate tectonics, movement of fluids such as wind, water, and ice, and gravity-driven movements of materials. It presents the principles underlying from geologic history, written historical accounts, and today's headlines. The course assesses some of man's attempts to engineer solutions to geological problems, global and extraterrestrial forces as they affect the planet, and our current understanding of the cause and effect of climate change. This course is conducted primarily in lecture and discussion format with the inclusion of in-class exercises and relevant case studies presented in web format.

**SCIE 1199 Special Topics in Science ..... 1-4 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the college dean. Credits earned will be applicable as free electives in degree and certificate programs.

**SCIE 1210 Science in the Heart of Appalachia ..... 4 hrs.**

During this course you will explore the science underlying the formation, extraction and utilization of coal within the context of coal-based societal issues. The course will emphasize active, student-centered learning. Topics include the formation of different coal types, why coal is such an excellent source of energy, acid mine drainage, environmental pollution, human health issues, and the future of new coal technologies. You will investigate the important, intractable social problems of non-renewable resource depletion, mountaintop removal-valley fills and public health. You will be challenged to examine your role as a citizen and energy consumer in finding equitable solutions to these and other issues.

**SCIE 1220 Geologic Heritage in the Field ..... 4 hrs.**

Designed for non-science majors and no prerequisites, this course explores introductory geology concepts in the classroom and through field trips. Topics include the Earth's formation, plate tectonics, geologic time, mineral and rock identification, landform interpretation, and their relationship to cultural history. Students investigate both the process and content of geology through activities, collaborative learning, and local field trips. Concepts are applied to deciphering the state's ancient geology, geography, and critical environmental issues. The course primarily uses handouts with a suggested textbook. The class meets for two-hour class periods twice a week that include local field trips during class time plus 3 or 4 daylong field trips on the weekends to areas of interest.

**SCIE 1221 EVOLUTION AND HUMAN NATURE ..... 4 hrs.**

This course is intended for students who have an interest in the interrelationship of science and the humanities. Students will be exposed to concepts in paleontology and the principles of evolution. The course will serve as an activities-based, General Studies elective that will demonstrate the relationship of evolutionary biology to the nature of humans. Novel approaches to explaining truth, beauty and the good will be offered. Evolutionary perspectives of ethics and aesthetics will be compared with similar perspectives found in philosophy, literature, scripture and other writings. The implications for a continuing dialogue between science and the humanities will be explored. PR: Minimum English ACT score of 18, or SAT-Critical Reading of 450, or Reading of 71 on the COMPASS test or a "C" or better in ENGL 1101.

**SCIE 1230 Student Projects in SPACE ..... 4 hrs.**

Students taking this course will be introduced to concepts of science, scientific investigation and project engineering through a series of enjoyable and progressively more challenging projects,

from bridge-building to a weather balloon rising 100,000 ft into the stratosphere. Concepts of physics, chemistry, engineering technologies, and business will be used to successfully complete the projects. Emphasis is placed on individual and team problem solving, systems thinking, and project management.

**SCIE 2200 FSU Ocean Issues & Society ..... 4 hrs.**

This online project-based science course is designed to teach science concepts within the theme of ocean issues such as Coral Bleaching, Offshore Drilling, Garbage Gyres, and Dead Zones. The fifteen modules focus on the biology, chemistry, physics, and geology content and processes needed to understand ocean issues. Each module explores student understanding of the issue, promotes ocean science literacy, investigates impacts on the ocean and/or terrestrial environment, and requires application projects requiring engagement with science, technology, and societal needs.

## SOCIAL SCIENCE

**SSCI 1199 Special Topics in Social Science ..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the School's chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**SSCI 4431 Methods and Materials of Teaching Social Studies ..... 3 hrs.**

A survey of theory and practice in secondary school social studies. Students participate in laboratory exercises using various techniques of social studies teaching. Each student is also required to plan and teach at least one micro-unit. Fall semester only. PR: Successful completion of PPST PRAXIS Test.

**SSCI 4498 Interdisciplinary Seminar ..... 3 hrs.**

Identification and synthesis of major concepts in the fields of geography, history, political science, psychology, sociology and economics. No prerequisites for History Majors. PR: Instructor approval required. Fall semester only.

**SSCI 4998 Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## SOCIOLOGY

**~ SOCY 1110 S-FSU Introductory Sociology ..... 3 hrs.**

This course focuses on social interaction and group behavior with an emphasis on the scientific study of contemporary society. Topics include issues relating to socialization, culture, and inequality. Using these concepts students will analyze relationships among the institutions of family, religion, politics, and work.

**SOCY 1150 Introduction to Healthcare Professions .... 3 hrs.**

This course is designed to introduce students to the basic tenets of health and well-being, healthcare settings, and a variety of healthcare professions. Students will learn about different health professions, how health professions impact health and well-being, and the different settings in which healthcare professionals work. Emphasis will be placed on how roles within healthcare settings intersect to support the goal of personal and public health. (SOCY 1150 is the same course as ALLH 1150 and PSYC 1150; students may receive credit for the course only once).

**SOCY 1160 Exploration of Healthcare Professions..... 2 hrs.**

Students will explore healthcare settings through service learning projects. Students will partner with community groups/agencies that provide health-related services to citizens of North Central WV and beyond. Emphasis will be placed on teamwork, collaboration, and the achievement of personal and public health goals. This is a 2 credit course. (SOCY 1160 is the same course as ALLH 1160 and PSYC 1160; students may receive credit for the course only once).

PR or CR: ALLH 1150 or SOCY 1150 or PSYC 1150

**SOCY 1199 Special Topics in Sociology..... 1-12 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the School's chairperson. Credits will be applicable as sociology major and minor electives, or as free electives in other degree and certificate programs.

**SOCY 2200 S-FSU Social Problems ..... 3 hrs.**

In this course students will use a sociological perspective to critically examine problems in society. Topics include concerns related to families, education, the workplace, the media, poverty, crime, drug abuse, health issues, war and terrorism, the environment, and global concerns. Individual and social action as a potential solution to these problems will also be addressed.

**SOCY 2205 Principles of Race, Class, and Gender..... 3 hrs.**

This course is an introduction to the sociological analysis of race, class, and gender in contemporary society. This course explores how race, class, and gender are constructed, reinforced, and maintained in society. Students will critically analyze how systems of power and inequality affect cultural norms, social interactions, and institutional structures. Over the course of the semester, students will develop an appreciation for the multidimensional and complex nature of the issues underlying the construction and intersection of race, class, and gender.

**SOCY 2220 Population Studies ..... 3 hrs.**

Population studies, also referred to as demography, involves the study of human populations' size, composition and distribution. Population growth is examined, as well as many of the factors responsible for population growth. Interrelationships among demographic, social, economic and environmental factors are investigated, in the context of population issues and problems. PR: SOCY 1110.

**SOCY 2230 Social Psychology..... 3 hrs.  
(Same as PSYC 2230)**

This course covers the scientific study of how individuals think, feel, and behave in a social context. Topics include the self, stereotypes, prejudice and discrimination, attitudes, conformity, group processes, attraction, helping and aggression. Same course as PSYC 2230 Social Psychology; also listed as PSYC 2230 Social Psychology. Credit may be received for either PSYC 2230 or SOCY 2230, but not both. PR: PSYC 1101 or SOCY 1110.

**SOCY 2240 Behavioral Statistics ..... 3 hrs.  
(Same as PSYC 2240)**

This course covers elementary statistical description and analysis, as employed particularly in the behavioral sciences. Same course as PSYC 2240 Behavioral Statistics; also listed as PSYC 2240 Behavioral Statistics. Credit may be received for either PSYC 2240 or SOCY 2240, but not both. PR: MATH 1107 or higher.

**SOCY 3301 Cultural Anthropology..... 3 hrs.**

A study of human biological and social origins, including human prehistory, race, the origin and nature of culture, social organizations among preliterate peoples, cultural diffusion and culture change. PR: SOCY 1110 or SOCY 1111.

**SOCY 3310 Sociology of the Family..... 3 hrs.**

A study of the background, structure and function of the American family, with emphasis placed on the effect of social change upon the family. The meaning of the paired relationship is examined, along with alternatives to marriage and the family. PR: SOCY 1110.

**SOCY 3325 Stratification and Class ..... 3 hrs.**

The course includes an analysis of social structure and stratification in terms of class, status and power relations in society; students will examine various theories and research findings. PR: SOCY 1110 and SOCY 2205.

**SOCY 3340 Juvenile Delinquency ..... 3 hrs.**

A study of what society defines as delinquent behavior and of the young people designated as delinquents. Emphasis will be placed on the causes of delinquency and on the various techniques and methods of prevention, treatment and rehabilitation. PR: SOCY 2200.

**SOCY 3350 Sociology of Religion ..... 3 hrs.**

This course seeks to introduce undergraduate students to the nature and functions of religious beliefs and institutions in modern societies, with a primary emphasis on conditions in the contemporary United States.

**SOCY 3360 Methods of Social Research ..... 3 hrs.**

Introduction to the principle research methods used in sociology, including survey research, interviewing, content analysis, experiments, ethnographies, focus groups, historical analysis, and analysis of secondary data. Instruction on sampling and the principles of validity and reliability underlying quantitative and qualitative methods. PR: SOCY 2240 OR PSYC 2240.

**SOCY 3370 Concepts of Survey Design ..... 3 hrs.**

This course is a project-centered exploration of concepts in survey design. The role and mechanics of developing a survey instrument in the context of an overall research project will be reviewed. Topics will include translating research goals into a research design, probability sampling, questionnaire construction, data collection (including interviewing techniques), data processing, and ethical considerations. PR: SOCY 2240 OR PSYC 2240.

**SOCY 3390 Social Change ..... 3 hrs.**

This course will introduce students to paradigmatic theories of social movement. Topics covered may include conditions under which social actors organize collectively to engage in social change; how theorists understand these movements, their emergences, their potentials, and their successes or failures; and the state of social movement along with collective politics in "complex" societies. This course will introduce students to both mainstream theories of social movement and alternative ways of conceptualizing contemporary social movement. PR: SOCY 2220.

**SOCY 3395 Sociological Theory ..... 3 hrs.  
*Writing Intensive***

A study of the historical development of modern sociological thought. PR: ENGL 1102 and SOCY 1110. Junior or senior standing.

**SOCY 4410 Sociology of Work..... 3 hrs.**

A study of the organization, structure, function and social relationships found in the various areas of industrial activity in American society. The area of industrial relations will receive special emphasis. PR: SOCY 1110.

**SOCY 4450 Race and Ethnicity..... 3 hrs.**

A study of racial and cultural minority groups in the United States, with special emphasis upon understanding the causes of their perseverance and the reason for majority-minority antagonisms. Students will also examine the techniques whereby prejudices are developed and ameliorated. PR: SOCY 1110 and SOCY 2205.

**SOCY 4461 Advanced Methodology ..... 3 hrs.**

This course will critically compare the various stages of social research, such as conceptualization of hypothesis, measurement, experimental design, sampling, data collection, data analysis and data interpretation. Within this format, various special topics will be developed, depending upon the available resources. PR: SOCY 3360 or Instructor approval required.

**SOCY 4471    Advanced Sociological Theory: A Critical Review ..... 3 hrs.**

A comparison, contrast and critical examination of certain selected sociological theorists. PR: SOCY 3395 or Instructor approval required.

**SOCY 4480    Senior Capstone ..... 3hrs.**

This course serves as a culminating experience for the undergraduate study in sociology. It is designed to help students synthesize what they have learned in sociology and make the transition to the next stages of their lives. This will be achieved through two related activities. First, students will build on previous coursework in theory and research methods to create an original, article-length research paper analyzing sociological data. Second, students will investigate recent trends in the economy and labor market, collect data on an occupation they are planning to pursue after graduation, and interview people working in that field. Students should end this senior seminar with a sense of pride in what they have accomplished as sociology majors and a clearer vision for their future career. PR: SOCY 3370 Concepts of Survey Design and SOCY 3395 Sociological Theory.

**SOCY 4487    Directed Study in Sociology ..... 1-6 hrs.**

Intensive study and reading on a topic selected by the student and instructor. Requirements and credit must be decided before registration through instructor-student consultation. Up to 3 credit hours may be applied to the sociology major elective requirements Repeatable PR: Instructor approval required.

**SOCY 4488    Practicum in Sociology ..... 1-6 hrs.**

A specially arranged course designed to give the student practical experience in work settings related to sociology. Students will work with the course supervisor to develop contacts at an agency of interest before registering for the course, and their work will be supervised by an identified field supervisor as well as the course supervisor. A minimum of 120 hours in the position is necessary for 3 credit hours. Up to 3 credit hours may be applied to the sociology major elective requirements Repeatable PR: Instructor approval required.

**SOCY 4489    Directed Research in Sociology ..... 1-6 hrs.**

This course is an experiential learning activity that provides the student an opportunity to engage in original research under the guidance of a faculty mentor. The student in collaboration with a faculty mentor will identify a project topic and outline the requirements for said project before registering for the course. Up to 3 credit hours may be applied to the sociology major elective requirements Repeatable PR: Instructor approval required.

**SOCY 4490    Seminar: Sociological Literature..... 1-12 hrs.**

A course focusing on original sources and publications not primarily used as texts. PR: SOCY 3395 or Instructor approval required.

**SOCY 4497    Seminar: Special Problems in Sociology 1-12 hrs.**

Open only to juniors and seniors majoring in Sociology. Reading and research on subjects suited to the student's needs. PR: SOCY 3395 or Instructor approval required.

**SOCY 4998    Undergraduate Research ..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

**SPANISH****SPAN 1101    S-FSU    Elementary Spanish I..... 3 hrs.**

Designed for the student with little or no prior experience with Spanish. Students will practice Spanish pronunciation and will learn basic grammar as they develop skills in reading, writing, speaking and comprehension. Students will develop communication skills in situations related to everyday living, both at home and in the workplace. Students with two years or more of high school Spanish should register for SPAN 1102.

**SPAN 1102    S-FSU    Elementary Spanish II..... 3 hrs.**

A continuation of Spanish 1101. Students expand their skills and knowledge of grammar while reading, writing, speaking and building a broad vocabulary base. Students will develop communication skills in situations related to everyday living, both at home and in the workplace. PR: SPAN 1101 or equivalent.

**SPAN 1199    Special Topics ..... 3 hrs.**

Studies in selected topics, to be determined by the instructor and approved by the chairperson. Credits earned will be applicable as free electives in degree and certificate programs.

**SPAN 2200    Spanish Language Film and Video ..... 3 hrs.**

A survey of Peninsular and Latin American media. Media are usually subtitled; no prior knowledge of Spanish required.

**SPAN 2201    S-FSU    Intermediate Spanish I..... 3 hrs.**

Students integrate the grammar studied with the skills acquired in Spanish 1101 and 1102, and become familiar with more sophisticated grammatical structures. The course will focus on reading, writing, and communication skills in situations related to everyday living, both at home and in the workplace. PR: SPAN 1102.

**SPAN 2202    S-FSU    Intermediate Spanish II..... 3 hrs.**

The fourth and last course of the basic language program, this course is a continuation of SPAN 2201. The course emphasizes the development of speaking, listening, reading, and writing skills for effectively communicating in Spanish at the intermediate level within a cultural-based context. At the end of this course students should have attained a skill level of intermediate in all four skills mentioned above, the communicative modes (Interpersonal, Interpretive, and Presentational), and the five goals (Communication, Cultures, Connections, Comparisons, and Communities) recommended by the Proficiency Guidelines classifications of the American Council on Teaching Foreign Languages (ACTFL). Students participate in pair, small-group and whole-class activities that focus on the meaningful and accurate communication of information in the target language. The class is conducted entirely in Spanish. PR: SPAN 2201.

**SPAN 2250    Spanish For the Medical Professions..... 3 hrs.**

This course is designed to enable the student to effectively manage the fundamentals of medical terminology in Spanish. PR: SPAN 1102. Offered on demand.

**SPAN 2251    Spanish for Criminal Justice..... 3 hrs.**

This course enables the student to effectively manage the fundamentals of law enforcement terminology in Spanish. PR: SPAN 1102.

**SPAN 2252    Spanish for a World Economy ..... 3 hrs.**

This course is designed to enable the student to effectively manage the fundamentals of business terminology in Spanish. PR: SPAN 1102.

**SPAN 3300    Undergraduate Student Exchange..... 3-6 hrs.**

Any student who participates in an exchange program which is approved by his/her advisor may receive three to six credit hours, depending upon the type of program and its duration. PR: SPAN 1102.

**SPAN 3301    Spanish Composition and Conversation I. 3 hrs.***Writing Intensive*

This course is designed for students who wish to develop proficiency in Spanish by integrating the four language skills and also

increase their knowledge of Hispanic cultures and societies using authentic materials and literature. Students who enroll in this course should already have attained an acceptable proficiency in Spanish. This course should help students to develop their Spanish proficiency across three communicative modes (Interpersonal, Interpretive, and Presentational), and the five goals (Communication, Cultures, Connections, Comparisons, and Communities) recommended by the Proficiency Guidelines classifications of the American Council on Teaching Foreign Languages (ACTFL). Classroom activities are highly interactive and focus on speaking and writing in the target language at an advanced level. PR: SPAN 2202.

**SPAN 3302 Spanish Composition and Conversation II..... 3 hrs.**

This course, a continuation of SPAN 3301, is designed for students who wish to acquire a solid knowledge of those major points of Spanish grammar. Students who enroll in this course should already have attained an acceptable proficiency in using Spanish. Through discussion and correction of assigned exercises, analysis of authentic readings, and contrastive study of Spanish and English syntax and lexicon, students will develop an awareness of the norms of standard Spanish with the aim of incorporating these features into their own oral and written linguistic production. Classroom activities focus on writing in the target language at an advanced level. SPAN 3301 and 3302 can be taken in any order, but it is strongly recommended to take 3301 before 3302. PR: SPAN 2202.

**SPAN 3310 Spanish Civilization and Culture ..... 3 hrs.**

The students will study the history, civilization, and culture of Spain through extensive reading, videos, writing and class discussion. PR: SPAN 3301 or 3302.

**SPAN 3320 Latin American Civilization and Culture ..... 3 hrs.**

The students will study the history, civilization, and culture of Latin America through extensive reading, videos, writing and class discussion. PR: SPAN 3301 or 3302.

**SPAN 3350 History of the Spanish Language ..... 3 hrs.**

This class is an introduction to the historical development of the Spanish lexicon, morphology, and phonology. It is designed for the student with little or no previous background in linguistics. PR: SPAN 3301 or 3302.

**SPAN 4400 Survey of Latin American Literature ..... 3 hrs.**

This class covers the major movements in Latin American literature, from Pre-Colombian times through the present. Students will be exposed to the major genres (poetry, prose, and drama) through extensive reading and will become familiar with the greatest writers of Hispanic literature. PR: SPAN 3301 or 3302.

**SPAN 4401 Survey of Peninsular Literature ..... 3 hrs.**

This class focuses on the major movements in Peninsular literature, from the Spanish Middle Ages through the present. Students will be exposed to the major genres (poetry, prose, and drama) through extensive reading and will become familiar with the greatest writers of Spanish literature. PR: SPAN 3301 or 3302.

**SPAN 4402 Independent Study.....3-6 hrs.**

Students may participate in a variety of programs designed to help them attain a higher level of fluency and a greater understanding of Hispanic culture. PR: SPAN 4400 or 4401, and Instructor approval required.

**SPAN 4410 Advanced Skills: Speaking, Writing, Listening and Reading ..... 3 credits**

In this class, students will continue developing advanced communication skills needed for the required PRAXIS exam, and ACTFL OPI (Oral Proficiency Interview) as well as the optional ACTFL WPT (Writing Proficiency Test). Students will work towards reaching the ACTFL standard of "Advanced Low," the proficiency level ACTFL recommends for graduating World Language majors. PREREQUISITES: SPAN 4400 or 4401.

**SPAN 4411 Spanish Capstone: Proficiency Portfolio ..... 1 Credit**

In this class, students create a Spanish language and cultural proficiency portfolio addressing ACTFL World-Readiness Standards for Learning Languages. Students are expected to integrate the five goal areas of the Standards (communication, culture, connections, comparisons and communities) into a cohesive language and cultural proficiency framework needed for graduation. PREREQUISITES: SPAN 4400 or 4401.

**SPAN 4418 U.S. Hispanic Cultures & Literature ..... 3 hrs.**

This course studies the history of the Hispanic presence in the US, its influence upon contemporary US culture, society, and economy and the politics of language. Materials studied include newspaper articles, essays, films and plays. PR: SPAN 3310 or 3320.

**SPAN 4431 Methods: Second Language Acquisition in the Classroom..... 3 hrs.**

Taught in English. In this class, foreign language teaching majors will study the methodology of second language acquisition and its application in the classroom, familiarize themselves with national foreign language instruction standards, design lesson plans, teach mini-lessons, participate in peer evaluation and become familiar with the latest pedagogical technologies available. PR: SPAN 4400 or 4401, and Instructor approval required.

**SPAN 4998 Undergraduate Research .....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level. Repeatable. Instructor approval required.

## SPECIAL EDUCATION

**SPED 2520 Linking Policy and Practice in Special Education..... 3 hrs. Required. PR: EDUC 2240.**

This course introduces participants to complex situations across developmental ranges of Individuals with Exceptionalities (IWE) from kindergarten through twelfth grade, therefore demonstrating the importance of ongoing attention to legal matters and serious consideration of professional and ethical issues. Course participants will analyze IDEA and other policy related to special education practice. They will analyze and describe special education as an evolving and changing discipline based on philosophies, evidence-based principles, theories, policies, and historical points of view that continue to influence the field. Course participants will demonstrate an understanding of how technology is used to support and manage all phases of planning, implementation, and evaluation. Procedures for determining eligibility, drafting an Individualized Education Plan (IEP), facilitating meetings, and planning for transition services will be covered in this course.

**SPED 3520 Behavior Analysis, Intervention, and Support..... 3 hrs. Required. PR: EDUC 2240.**

This course focuses on the principles and practices of positive behavioral supports, research-based applied behavior analysis, and behavior intervention strategies used to create a positive environment for teaching and learning which will include strategies used in schools, classrooms, and for students with exceptionalities. Upon successful completion of this course, the beginning special educator will be able to skillfully create safe, inclusive, culturally responsive learning environments so that individuals with exceptionalities become active and effective learners who develop emotional well-being, positive social interactions, and self-determination. This course will include clinical applications.

**SPED 4520 Assessment and Instruction of Individuals with Exceptionalities (IWE) ..... 4 hrs.**  
**Required. PR: EDUC 2260.**

This course emphasizes strategic instruction across curricular content areas to individualize learning for students with mild to moderate exceptionalities. Course participants will select a variety of formal and informal assessments and will analyze information from assessments to develop evidence-based comprehensive instructional programs that support mastery, promote generalization, and enhance critical thinking for individuals with mild to moderate exceptionalities. Course participants will explain how assistive and instructional technology can be used to help students with disabilities access the general education curriculum. Procedures for consulting and collaborating with other professionals to support students will be emphasized throughout the course. This course will include clinical applications.

## TECHNOLOGY

**TECH 1100 Technology and Society ..... 3 hrs.**

A study of the basic knowledge and understanding of the societal impacts of technology. Students will research basic fields in technology such as medicine, manufacturing, communication, transportation, biotechnology, environmental issues, technology transfer, and appropriate technology, to determine current trends. Students will be required to select one area where technology has affected society in a positive and/or negative way. Each student will be required to research and make an oral presentation on the selected topic.

**TECH 1101 S-FSU Introduction to Technology ..... 3 hrs.**

In this course, students will apply knowledge, tools, and skills to solve problems and extend their human capabilities. The goals of this course are for all students to develop some measure of Technological Literacy, while understanding the uniqueness of technology in human endeavors. A multidisciplinary approach to technology requires students to incorporate skills and techniques in all aspects of life. Interpersonal skills and relationships will be explored as students are challenged with collaborative hand-on problem-based learning activities. This course is intended as a survey of the discipline of technology and technological systems.

**TECH 1102 Preventive Maintenance ..... 3 hrs.**

This course is the beginning class for all students interested in a heavy equipment career. Many employers require a commercial driver's license of the employee. This course supports a CDL by providing the student with instruction on preventive maintenance practices, scheduled procedures, documents, and D.O.T. required record system and on determining the needs for repair.

**TECH 1104 Technology Design & Problem Solving ..... 3 hrs.**

This course provides incoming students with the prerequisite knowledge and skills for required technology systems classes that follow. Students will study the philosophy, rationale, and current curriculum trends in Technology Education. The course will also focus on basic design and drafting techniques, laboratory and machine tool safety practices and design and problem-solving processes used in technological career fields. Class methodology will include both lecture and applied experiences with tools, equipment and processes of technology.

**TECH 1108 Engineering Graphics I ..... 3 hrs.**

This course contains essentials of engineering graphics for engineering technology students. Content and emphasis of the course is to provide competency in technical sketching, blueprint reading, CAD applications, applied geometry, orthographic projection, section, dimensioning, tolerances, threads and fasteners, weldments, detail and assembly drawing, charting and basic elements of descriptive geometry.

**TECH 1150 Control Technology ..... 3 hrs.**

This course addresses the mechanical, fluid, electrical, electronic and computer instrumentation used to regulate technical products

and systems. Students will develop knowledge and skills of common control-related components/devices and apply them to the solution of practical problems found in typical technology education settings. CR: TECH 1104.

**TECH 1199 Special Topics ..... 1-12 hrs.**

A study of special topics of educational, technical, or industrial concern. PR: Instructor approval required.

**TECH 2202 Transportation I ..... 4 hrs.**

A study of the means by which mass is moved from one point to another. This will be achieved by studying the propulsion, guidance, control, suspension, structure and support elements of a wide variety of transportation subsystems. Students will complete an historic timeline of transportation and will deliver an oral presentation on a specific transportation propulsion system. PR: TECH 1104.

**TECH 2203 Manufacturing I ..... 4 hrs.**

This course deals with an introduction to the inputs, processes and outputs of the manufacturing system. The methodology of the course will involve students with selected research, development and production processes of the manufacturing system. More specifically, each student will design and engineer a middle school- or high school-level product. They will then perform selected production planning, plant engineering, and quality control activities to prepare their product for mass-production. The results of these activities will be developed into camera-ready copy production packets. Finally, each student will set up a production line for the class to mass-produce a limited number of their products, using jigs, fixtures, and/or other mass-production related tooling. PR: MANF 1100, TECH 1104.

**TECH 2204 Construction I ..... 4 hrs.**

This introductory course in construction is designed to acquaint students with the impacts of construction on society, basic concepts of architectural design, construction accoutrements (materials, tools and equipment), specifications and contracts, and processes involved in residential construction. Students will complete an historic timeline of construction and will deliver an oral presentation on a specific residential construction topic. Students will perform several traditional construction activities such as materials testing, card structures, and building a residential model. PR: TECH 1104, MANF 1100.

**TECH 2208 Engineering Graphics II ..... 3 hrs.**

This course is a continuation of Engineering Graphics I. It covers advanced concepts in 3D geometry; parametric solid modeling; geometric dimensioning and tolerancing using ANSI and ISO standards; working drawings and fasteners. Emphasis is placed on a thorough understanding of 3D solid modeling to create engineering graphics in civil, electrical, and mechanical engineering technology. PR: TECH 1108

**TECH 2250 History of Technology ..... 3 hrs.**

A survey course from prehistoric tool-making to atomic energy and computers in the twentieth century. Credit in History or Technical Education.

**TECH 2290 Engineering Analysis I ..... 4 hrs.**

This course covers technical problem solutions, utilizing analytical geometry and calculus. Topics include curvilinear motion, related rates, curve sketching, maximal and minimal problems, areas, volumes, centroids and moments of inertia by integration. PR: Sophomore standing. MATH 1102 with a grade of C or better or MATH ACT 25.

**TECH 2299 Special Topics ..... 1-12 hrs.**

A study of special topics of educational, technical, or industrial concern. PR: Instructor approval required.

**TECH 3300 Engineering Analysis II ..... 4 hrs.**

A continuation of the study of problem-solving procedures, utilizing calculus. Topics include transcendental functions, partial derivative, double integration, methods of curve fitting, series expansion and differential equations. PR: TECH 2290 or MATH 1185, or MATH 1190 with a grade of C or better.

**TECH 3301 Communication..... 4 hrs.**

This is a study of the technical means by which humans communicate. The emphasis will be on electronic and graphic forms of communication. The social/cultural aspects of communication will be studied, as well as the technical components. The course is designed for prospective junior and senior high school technology education teachers, and will be focused on general education. PR: INFO 1100, TECH 1104.

**TECH 3302 Manufacturing II..... 4 hrs.**

This course deals with the analysis of the inputs, processes and outputs of the manufacturing system. The methodology of this class is to simulate the organization and operation of a manufacturing corporation. Students will elect a board of directors and a company president and will organize departments in research and development, industrial relations, finance, production and marketing. The class will design and engineer a college-level product, plan for mass-production, finance the production through common stock sales or other financial means, mass-produce the product, and market it in the school or local community. PR: TECH 2203.

**TECH 3303 Transportation II..... 4 hrs.**

A study of the means by which mass is moved from one point to another. This will be achieved by studying the environments system elements, and social/cultural aspects of the transportation system. The course is designed for prospective junior and senior high school technology education teachers, and will be focused on general education. PR: TECH 2202.

**TECH 3304 Construction II..... 4 hrs.**

This course deals with an analysis of the inputs, processes, and outputs of the construction system. The methodology of this course will involve selected structural design and analysis, and structural production processes which are used by humans to construct building structures, non-building structures (bridges, tunnels, dams, etc.) and transportation structures/surfaces. This course is designed to provide teacher education majors with an overall view of the construction system that can be applied to middle school and high school classroom situations. The primary methodology in this course is structural model building and testing. PR: TECH 2204.

**TECH 3310 Man and Technology..... 3 hrs.**

A historical study of humans and technology as a basis for the development of contemporary philosophical systems. PR: Junior standing.

**TECH 3331 Organization and Administration of Technology Education..... 4 hrs.**

This course is designed to prepare the pre-service technology education teacher to effectively organize and manage a technology education classroom and laboratory. Emphasis is placed on safety system design, discipline planning, laboratory organization and management, requisitioning/supplies/equipment, machine maintenance and facility design. Also included are topics relating to curriculum trends, Technology Student Association (TSA) and public relations. PR: TECH 3303 and 3304.

**TECH 3393 Future Global Crises..... 3 hrs.**

A team-taught, multi-disciplinary study of potential developments in the world. Areas of concentration are subject to students' choice. (Credit also available in Political Science or Psychology) PR: Junior standing.

**TECH 3399 Special Topics..... 1-3 hrs.**

A study of special topics of educational, technical or industrial concern. PR: Instructor approval required.

**TECH 4400 Work Experience Seminar..... 4 hrs.**

A functional analysis of industrial organization and management, and the implementation of these concepts toward the initiation of a new industry. PR: Sophomore standing as a Technology major or Instructor approval required.

**TECH 4401 Work Experience Laboratory..... 8 hrs.**

Professional work experience, including employer evaluation. PR: Instructor approval required.

**TECH 4431 Methods and Materials for Teaching Technology Education..... 3 hrs.**

This course is designed to prepare the pre-service technology education teacher to effectively teach the range of students in grades five through twelve in the public schools. Emphasis is placed on designing a unit of instruction in one of the four technology education system areas. The primary assignment is the preparation of a unit of study that will include the following topics: a rationale, course/unit planning, lesson planning, instructional objectives, instructional strategies and student evaluation/grading. PR: TECH 3301 and 3331.

**TECH 4499 Special Topics..... 1-3 hrs.**

A study of special topics of educational, technical, or industrial concern. PR: Instructor approval required.

**TECH 4998 Undergraduate Research..... 0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of a student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Sophomore-Senior Level, Repeatable. Instructor approval required.

## THEATRE

**THEA 1110 Introduction to Theatre..... 3 hrs.**

This course provides an overview of the purposes and organization of the theatre and allied areas and the functions of all of the jobs related to a theatrical presentation. Students will examine performer, director, designer, technician, dramaturgy, and "front-of-house" operations and the theatre as a profession, and will learn about professional organizations and securing employment. Fall semester only.

**THEA 1114 Body Training and Stage Movement..... 3 hrs.**

The actor explores the movement of the body as it applies to space, line, focus, effort, strength, communication, connection and emotional release. Open to theatre arts majors and minors only. Spring semester only.

**~ THEA 1120 Theatre Appreciation..... 3 hrs.**

A general theatre course that serves as an introduction to traditional and more recent developments in Western and non-Western theatrical practice. Students are encouraged to develop their own perspectives and critical skills by means of studying selected writings of theatre practitioners and critics, and by seeing and evaluating campus theatre productions. Satisfies General Studies category V.IIIA.

**THEA 1140 Theatrical Production..... 2 hrs.**

This course introduces the student to the principles and techniques of the organization, planning, and execution of technical theatre production, including scenery, properties, lighting, costuming, sound and stage management.

**THEA 1148 Theatre Workshop I..... 1 hr.**

Students in this course are assigned to Masquers. Opportunities are provided for experience in all areas of technical theatre, such as scenic construction, properties, lighting, costume and sound crews, depending upon the proficiency of the student. Maximum credit allowed is 2 hours per semester, up to 4 hours total. (Juniors and seniors, see THEA 3348)

**THEA 1151 Text Analysis ..... 3 hrs.**

This course provides a basic introduction to the processes, techniques and applications of text analysis as they relate to the activities and responsibilities of theatre artists - acting, directing, designing, etc. Spring semester only.

**THEA 1160 Technical Theatre Practicum: Costuming I.. 1 hr.**

Practical experience in varied aspects of costuming through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to freshmen and sophomores. (Juniors and seniors, see THEA 3360) PR: Instructor approval.

**THEA 1162 Technical Theatre Practicum: Lighting I..... 1 hr.**

Practical experience in varied aspects of lighting through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to freshmen and sophomores. (Junior and seniors, see THEA 3362) PR: Instructor approval.

**THEA 1164 Technical Theatre Practicum: Properties I... 1 hr.**

Practical experience in varied aspects of properties through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to freshmen and sophomores. (Juniors and seniors, see THEA 3364) PR: Instructor approval.

**THEA 1166 Technical Theatre Practicum: Scenic I..... 1 hr.**

Practical experience in varied aspects of scenic work through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to freshmen and sophomores. (Juniors and seniors, see THEA 3366) PR: Instructor approval.

**THEA 1168 Technical Theatre Practicum: Sound I ..... 1 hr.**

Practical experience in varied aspects of sound through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to freshmen and sophomores. (Juniors and seniors, see THEA 3368) PR: Instructor approval.

**THEA 1199 Special Topics in Theatre..... 1-3 hrs.**

Studies in special selected topics, to be determined by the instructor and approved by the School's Dean. Credits earned will be applicable as free electives in degree and certificate programs. Maximum credit allowed is 3 hours per semester, up to 12 hours total.

**THEA 2212 Theatrical Makeup ..... 1 hr.**

Fundamentals of the theory and technique of designing and applying theatrical makeup. A basic makeup kit is required. Fall semester only.

**THEA 2220 Oral Interpretation..... 3 hrs.**

This course provides an introduction to the study and practice of the principles involved in understanding the meaning of prose, poetry and dramatic literature, and the effective transmission of that meaning to an audience. Spring semester only.

**THEA 2228 Oral Interpretation Practicum I ..... 1-4 hrs.**

Preparation for and participation in public performances, intercollegiate competitions and festivals in oral interpretation. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to freshmen and sophomores. (Juniors and seniors, see THEA 4428.) PR: THEA 2220.

**THEA 2230 Acting ..... 3 hrs.**

This course is an introduction to the theory and practice of fundamental acting techniques for the stage. PR: THEA 1151 and instructor approval. Fall semester only.

**THEA 2238 Acting Workshop I..... 1 hr.**

Credit is earned for public performance in faculty-directed Masquers productions. Maximum credit allowed is 2 hours per semester, up to 4 hours total. Open to freshmen and sophomores. (Juniors and seniors see THEA 4432.)

**THEA 2244 Introduction to Theatrical Design..... 3 hrs.**

An introduction to the principles of theatrical design, including scenic, lighting and costume design. Spring semester only. PR: THEA 1140 and 1151.

**THEA 2251 Playwriting..... 3 hrs.**

The course explores the theory and practice of the playwright's art, and involves instruction in the craft of playwriting and the creation of original scripts for the theatre. Students will learn how to write for the stage, as opposed to the page. A fully developed short play will be required. PR: THEA 1151 and 2230. Fall semester, odd numbered years.

**THEA 2262 Production Practicum I..... 1 hr.**

Credit is earned for practical experience in varied aspects of technical theatre production, including scenery, lighting, costuming, properties and sound, through work on Masquers productions. Maximum credit allowed is 2 hours per semester, up to 4 hours total. Open to freshmen and sophomores. (Juniors and Seniors, see THEA 4465.) PR: THEA 1148.

**THEA 3314 Advanced Theatrical Makeup..... 1 hr.**

Practice in advanced design and application of theatre makeup, including prosthetics. PR: THEA 2212. Spring semester, odd numbered years.

**THEA 3320 The Art of Storytelling in Theory and Practice ..... 3 hrs.**

The emphasis of the course will be on both the theory and research related to storytelling and the art of storytelling as performance. In this performance-based course, students will select, craft, rehearse and perform stories suitable to a variety of audiences. Students enrolled in this course are required to attend the National Storytelling Festival in Jonesborough, Tennessee. Also listed as FOLK 3320 and COMM 3320. Fall semester, odd-numbered years.

**THEA 3326 Performance Studies ..... 3 hrs.**

The course explores the theories and practices of approaching performance as a way of knowing. Through theatre exercises and personal discovery, students research, create and perform a solo piece for the stage. PR: THEA 2230. Fall semester, odd-numbered years.

**THEA 3330 Advanced Acting ..... 3 hrs.**

This course is a continuation of THEA 2230, with specific emphasis on the exploration and application of twentieth-century acting theories applied to both realistic and non-realistic plays. PR: THEA 2230. Spring semester, odd-numbered years.

**THEA 3336 Directing ..... 3 hrs.**

Principles and techniques of play directing with specific emphasis on play selection and analysis, casting, and staging. PR: THEA 1140, 1151, and 2230. Spring semester only.

**THEA 3340 Theatre History I..... 3 hrs.***Writing Intensive*

A study of the development of theatre from its beginnings through the eighteenth century. PR: ENGL 1102 and THEA 1110. Fall semester, even-numbered years.

**THEA 3341 Theatre History II..... 3 hrs.***Writing Intensive*

This course is a continuation of THEA 3340, exploring the development of theatre from the nineteenth century to the present. PR: ENGL 1102 and THEA 1110. Spring semester, odd-numbered years.

**THEA 3344 Advanced Theatrical Design ..... 3 hrs.**

This course will involve completed projects in scenic, lighting and costume design. Students will apply theory and introductory techniques and skills presented in the beginning course. PR: THEA 2244. Fall semester, odd-numbered years.

**THEA 3346 Creative Puppetry..... 3 hrs.**

The course explores the theories and practices of puppetry as an artistic performance and as an educational tool. Projects in this

course will include puppet design, construction and performance. Emphasis will be placed on teaching the National Standards in Theatre as well as on ways to use puppets across the curriculum. Fall semester, odd-numbered years.

**THEA 3348 Theatre Workshop II ..... 1 hr.**

Students in this course are assigned to Masquers mainstage productions. Opportunities are provided for experience in all areas of technical work, such as scenic construction, properties, lighting, costume and sound crews, depending upon the proficiency of the student. Maximum credit allowed is 2 hours per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores see THEA 1148.)

**THEA 3350 Children's Drama..... 3 hrs.**  
*Writing Intensive*

A course providing an introduction to the theories and techniques involved in both creative drama for children and children's theatre. Spring semester, even-numbered years. PR: ENGL 1102.

**THEA 3352 Creative Drama..... 3 hrs.**

The course explores the history, theories and practices of playmaking, storytelling, creative drama and theatre-in-education as they are used in educational settings with diverse populations. Projects in this course will also apply drama techniques across the school curriculum. Fall semester, even-numbered years. Satisfies General Studies category VIIA requirement.

**THEA 3354 Theatre Education Practicum ..... 1 hr.**

This course involves the application of theories and techniques of children's theatre, creative dramatics and puppetry under supervision with diverse populations in educational settings. PR: THEA 3346, 3350 and 3352.

**THEA 3356 Summer Theatre: Rehearsal and Performance ..... 1-3 hrs.**

Systematic rehearsal and public performance with Town & Gown Summer Theatre. Designed for students who desire concentrated stage training and experience. Roles are dependent upon directors' selection and hours of credit desired. PR: Auditions.

**THEA 3358 Summer Theatre: Production and Management ..... 1-3 hrs.**

Experience provided in every phase of theatrical production and some phases of theatre management, in conjunction with Town & Gown Summer Theatre. Experiences include set construction, lighting, costumes, makeup, box office, house management and publicity. Assignments dependent upon hours of credit desired. PR: Instructor approval.

**THEA 3360 Technical Theatre Practicum: Costuming II. 1 hr.**

Practical experience in varied aspects of costuming through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores, see THEA 1160) PR: Instructor approval.

**THEA 3362 Technical Theatre Practicum: Lighting II..... 1 hr.**

Practical experience in varied aspects of lighting through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores, see THEA 1162) PR: Instructor approval.

**THEA 3364 Technical Theatre Practicum: Properties II.. 1 hr.**

Practical experience in varied aspects of properties through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores, see THEA 1161) PR: Instructor approval.

**THEA 3366 Technical Theatre Practicum: Scenic II..... 1 hr.**

Practical experience in varied aspects of scenic work through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to

juniors and seniors. (Freshmen and sophomores, see THEA 1166) PR: Instructor approval.

**THEA 3368 Technical Theatre Practicum: Sound II ..... 1 hr.**

Practical experience in varied aspects of sound through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores, see THEA 1168) PR: Instructor approval.

**THEA 3375 Development of Dramatic Art..... 3 hrs.**  
*Writing Intensive*

Study of the works of major playwrights and critical theorists of Western and non-Western theatre. PR: ENGL 1102. Fall semester, even-numbered years. Satisfies General Studies category VIIB.

**THEA 3392 Costume History and Design ..... 3 hrs.**

History of wearing apparel and appointment, with emphasis on the Western world. The course begins with the Egyptians and goes up to the present day, and offers an introduction to the principles of costume design. PR: THEA 2244. Fall semester, odd-numbered years.

**THEA 4428 Oral Interpretation Practicum II ..... 1-4 hrs.**

Preparation for and participation in public performances, intercollegiate competitions and festivals in oral interpretation. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores, see THEA 2228) PR: THEA 2220.

**THEA 4432 Acting Workshop II..... 1 hr.**

Credit is earned for public performance in faculty-directed Masquers productions. Maximum credit allowed is 2 hours per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores, see THEA 2238)

**THEA 4438 Senior Comprehensive Project..... 3 hrs.**

The course consists of a capstone experience that assesses student understanding of the theories and practices studied and developed throughout the program. A significant production/research project is designed and executed with the guidance of a faculty mentor. Senior standing. Open to theatre arts majors only.

**THEA 4462 Production Practicum II..... 1 hr.**

Credit is earned for practical experience in varied aspects of technical theatre production, including scenery, lighting, costuming, properties and sound, through work on Masquers productions or other staged events. Maximum credit allowed is 1 hour per semester, up to 4 hours total. Open to juniors and seniors. (Freshmen and sophomores, see THEA 2262) PR: THEA 1148.

**THEA 4480 Theatre Business Management and Promotion..... 3 hrs.**

Study of theatre management procedures, including responsibilities and practices in business management, box office management and house management and the study of the responsibilities and practices in theatre promotion, including the use of the media. Spring semester, even-numbered years.

**THEA 4484 Theatre Business Management Practicum.. 1 hr.**

Practical experience in varied aspects of business management, including box office assignments through work with Masquers productions. PR: Instructor approval.

**THEA 4488 Promotion Practicum ..... 1 hr.**

Practical experience in varied aspects of theatrical promotion through work on Masquers productions. PR: Instructor approval.

**THEA 4490 Directed Study in Theatre..... 1-3 hrs.**

The student selects directed study in any area of theatre which is not treated in the theatre course offerings. Course designed by student and selected faculty, with approval of the School's Dean. Maximum credit allowed is 3 hours per semester, up to 12 hours total. PR: Instructor approval.

**THEA 4998 Undergraduate Research .....0-6 hrs.**

Undergraduate research is an experiential learning activity that provides an opportunity for a student to engage in the scholarly activities of their major discipline under the guidance of a faculty mentor who will work in close partnership with each student in his or her formulation of a project, the development of a research strategy, and the assessment of student's progress. The primary goal is for each student scholar to conduct an inquiry or investigation that makes an original, intellectual or creative contribution to their discipline and which is shared in an appropriate venue. Maximum credit allowed is 3 hours per semester, up to 9 hours total. PR: Sophomore standing and above, instructor approval.