

Course Descriptions – Undergraduate

Undergraduate courses offered by SBU are divided into four categories. In general, the following may be considered guidelines:

1. 1000 level courses are primarily for freshman students. Courses with the number 1951, 1952, 1953, 1954 or 1955 meet the general education requirement for that area.
2. 2000 level courses are primarily for sophomore students and those students with essential prerequisites or backgrounds.
3. 3000 level courses are primarily for junior students and those students with essential prerequisites or backgrounds.
4. 4000 level courses are primarily for senior students and those students with essential prerequisites or backgrounds.

Accounting

ACC 2013 Principles of Financial Accounting – 3 hours (Fall, Spring)

An introduction to the concepts and principles underlying accounting and financial information as used in operating a business. Basic fundamentals of financial accounting from both a preparer's and a user's perspective will be presented. The impact of business events on an entity's financial position will be emphasized through an understanding of an organization's operating, investing, and financial activities. Prerequisite: 24 credit hours completed.

ACC 2043 Principles of Managerial Accounting – 3 hours (Fall, Spring)

A study of managerial accounting that focuses on the role of accounting in the improvement of management practices and pays specific attention to: cost accumulation, cost behavior, accounting analysis, budgeting, management decision-making and control, time-value-of-money and capital budgeting. Prerequisite: ACC 2013.

ACC 295(1-4) Special Topics in Accounting – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit. *Note:* Depending on the topic, there may be an additional fee.

ACC 3023 Managerial Cost Accounting – 3 hours (Fall, even years)

Emphasizes cost accumulation by specific order, process, and overhead cost methods as managerial tools in planning, monitoring, and controlling organization activities. Additional focus is on the improvement of management practices through understanding the behavior of costs, budgeting, and accounting analysis. Prerequisite: ACC 2043.

ACC 3024 Intermediate Accounting I – 4 hours (Fall)

Comprehensive study of current accounting principles and their application to the measurement and the reporting of assets and liabilities with emphasis on their effect on income and expense recognition. The concept of time-value-of-money as it relates to accounting is introduced. Prerequisite: ACC 2043.

ACC 3033 Accounting Information Systems – 3 hours (Spring)

Study of manual and computerized accounting information systems, business processes and their documentation, and the resulting transaction cycles to process accounting information of businesses and organizations. The course will emphasize the identification of risks in the accounting information system and the development and documentation of proper internal controls for the system in order to mitigate and control identified risks. Co-requisite: ACC 2043.

ACC 3034 Intermediate Accounting II – 4 hours (Spring)

Continuation of ACC 3024 with emphasis on the liability and the stockholders' equity sections of the balance sheet. Includes a study of financial statement analysis, the cash flow statement, and specific accounting issues such as investments, revenue recognition, income tax accounting, pensions/post-retirement benefits, leases, accounting changes and errors, earnings per share and segment reporting. Prerequisite: ACC 3024.

ACC 3063 Tax Accounting I – 3 hours (Fall)

Course deals with federal tax laws. Primary emphasis placed upon research of federal tax treatment and tax planning of business transactions in preparation of individual tax returns. Prerequisite: ACC 2043.

ACC 3073 Tax Accounting II – 3 hours (Spring, even years)

Continuation of ACC 3063. Course deals with federal tax laws as they pertain to partnerships, corporations, gifts, estates and trusts. Special emphasis on research of tax treatment and tax planning of capital changes, securities, foreign income and specially taxed entities. Prerequisite: ACC 3063.

ACC 3211 Introduction to Forensic Accounting and Audit Software– 1 hour (Winterfest, odd years)

An introduction to basic forensic accounting principles, the use of audit software to analyze transactions and detect unusual activity, and ensuring the integrity of the accounting system. Prerequisite: ACC 3024.

ACC 4013 Advanced Accounting – 3 hours (Fall)

Study of financial accounting principles as applied to consolidations, foreign exchange and selected specialized areas of accounting practice. Prerequisite: ACC 3034.

ACC 4021 CMA Review: Financial Planning, Performance and Control – 1 hour (Fall, Spring, Summer, Winterfest)

A self-study review of general business issues in the areas of business economics, global business, internal controls, quantitative methods and financial statement analysis. Fee: \$10.

ACC 4031 CMA Review: Financial Decision Making – 1 hour (Fall, Spring, Summer, Winterfest)

A self-study review of management accounting methods, including budget preparation, cost management, information management, performance measurement, external financial reporting. Fee: \$10

ACC 4043 Auditing – 3 hours (Spring, even years)

Emphasis on the objectives of audits, duties and obligations of the auditor, principles and procedures utilized in conducting a financial statement audit. Prerequisite: ACC 3034.

ACC 4053 Accounting for Non-Profit and Government Entities – 3 hours (Spring, odd years)

Study of the accounting principles applicable to federal, state and local government units and other not-for-profit organizations; emphasis on the use of funds in recording and analyzing unit operations. Prerequisite: ACC 3024.

ACC 4061 CPA Review: Auditing and Attestation – 1 hour (Fall, Spring, Summer, Winterfest)

A self-study review of current financial statement auditing and attestation principles, objectives, and procedures. Prerequisite: 23 hours of accounting. Fee \$10.

ACC 4071 CPA Review: Financial Accounting and Reporting – 1 hour (Fall, Spring, Summer, Winterfest)

A self-study review of current financial accounting standards and procedures to account for and report financial transactions and events of organizations. Prerequisite: 23 hours of accounting. Fee \$10.

ACC 4081 CPA Review: Regulation – 1 hour (Fall, Spring, Summer, Winterfest)

A self-study review of regulatory issues such as federal taxation, business law, and ethics as it relates to the accounting profession. Prerequisite: 23 hours of accounting. Fee \$10.

ACC 4091 CPA Review: Business Environment and Concepts – 1 hour (Fall, Spring, Summer, Winterfest)

A self-study review of general business issues and concepts needed to understand the business reasons for, and accounting implications of, business transactions. Prerequisite: 23 hours of accounting. Fee \$10.

ACC 4113 Managerial Accounting – 3 hours (Fall)

The application of accounting principles and techniques to managerial planning and controlling activities. Areas emphasized will include behavior of cost, budgeting, accounting analysis, and improving managerial tools used in decision making. Prerequisite: ACC 2043/5013, Application and acceptance to the MBA program is necessary prior to enrolling in this course. Fee \$150.

ACC 495(1-4) Intensive Studies in Accounting – 1-4 hours (On demand)

Topics vary with each offering; therefore, the course may be repeated for credit.

ACC 498(1-3) Internship in Accounting – 1-3 hours (Fall, Spring, Summer, Winterfest)

Academically planned and supervised work experience in area(s) of the student's major within business or other organizations, approved by the faculty advisor and division head as an enhancement to the student's educational preparation at SBU. Written reports will be required of the student and performance reports from the employer. A maximum of six semester hours of internships may be applied to the major. Prerequisite: 60 credit hours completed.

ACC 499(1-3) Independent Study in Accounting – 1-3 hours (On Demand)

Independent study of some problem or area not covered in organized courses under the direction of a division member in whose field of specialization the problem area lies. Prerequisites: 3.00 GPA in major field, and 60 hours completed.

Agriculture

AGR 1114 Introduction to Soil Science - 4hours (Fall)

The study of soil nature and properties, the identification of soils, the study of soil formation and conservation, and the role of soils in the environment. Three lectures, one lab each week. Lab fee: \$60. Prerequisite: BIO 1003, BIO 1001.

AGR 2244 -- Principles of Forage and Pasture Management - 4 hours (Fall even years)

Study of perennial and annual grassland systems focusing on plant identification, management, and utilization for agricultural enterprises. Three lectures and one lab each week. Lab fee: \$60. Prerequisite: AGR 1114, or concurrent enrollment.

AGR 2444 -- Beef Production and Management - 4 hours (Spring odd years)

The principles of ruminant nutrition, specifically beef cattle, including intake, chemical and physical digestion, absorption, microbe populations and function, and metabolism of feed. Three lectures and one lab each week. Lab fee: \$100. Prerequisite: BIO 1003, BIO 1001.

AGR 3244 -- Principles of Crop Production management - 4 hours (Spring even years)

Provide students with an introduction to crops, soils, inputs and management for crop production throughout the United States with an emphasis on regional agriculture. Three lectures and one lab each week. Lab fee: \$100. Prerequisite: AGR 1114

AGR 4403 -- Principles of Ruminant Nutrition - 3 hours (Fall odd years)

The principles of ruminant nutrition, specifically beef cattle, including intake, chemical and physical digestion, absorption, microbe populations and function, and metabolism of feed. Three lectures each week. Prerequisite: AGR 2444

AGR 4442 -- Farm and Ranch Planning - 2 hours (Spring)

A study of the concepts utilized for developing and planning agriculture operations. A capstone course with an integrated lecture and lab with 4 contact hours per week. Lab fee: \$100. Prerequisite: AGR 3244, 4403.

Art

ART/FAR 1013 Introduction to Art – 3 hours (Fall, Spring)

An introduction to art from all historical periods to help the non-art and art major develop an understanding of the role of art in the life of man and the value of art to the individual. Required for art majors. Fee \$60.

ART 1103 Design – 3 hours (Fall, Spring)

An introduction to basic two-dimensional visual design through the use of traditional materials and tools to investigate line, shape, value, texture and color with an emphasis on spatial relationships. Fee: \$40.

ART 1203 Drawing I – 3 hours (Fall, Spring)

An introduction to traditional drawing through an understanding of basic principles of composition, proportion and perspective. Emphasis on representational drawing, drawing methods and drawing tools and materials. Fee: \$40.

ART 2003 Photography I – 3 hours (Fall, Spring)

An introduction to the use of camera technique and photograph processing. Emphasis on creative photographic composition, editing, critique and presentation of printed work. Lab fee \$85.

ART 2013 Ceramics I – 3 hours (Fall)

An introduction to basic clay production techniques including hand-building, wheel-throwing and basic glazing applications. Lab fee \$85.

ART 2023 Sculpture I – 3 hours (Spring)

An introduction to basic three-dimensional design, principles, concepts and production techniques. Lab fee \$75. Prerequisite: ART 1103.

ART 2033 Painting I – 3 hours (Fall, Spring)

An introduction to basic water-based painting on canvas and panels with an emphasis on representational, painterly composition. Lab fee: \$85. Prerequisite: ART 1103, 1203.

ART 2203 Drawing II – 3 hours (Fall, Spring)

An intermediate drawing course through creative use of, and experimentation with, a variety of drawing media. Prerequisite: ART 1203. Course Fee: \$40.

ART 2703 Introduction to Graphic Design – 3 hours (Fall, Spring)

Introduction-level course to be concerned primarily with basic issues and topics in graphic design. The course will introduce vector-based, paint-based, and layout-capable software applications through studio lecture, in-class exercises, and a variety of project assignments. Lab fee \$75.

ART 2803 Art History I – 3 hours (Fall)

Illustrated study of architecture, painting, sculpture and applied arts from prehistoric times to the Italian Renaissance. Course fee: \$40.

ART 2813 Art History II – 3 hours (Spring)

Illustrated study of architecture, painting, sculpture and applied arts from 14th through 20th century. Course fee: \$40.

ART 3003 Life Drawing – 3 hours (Fall)

An advanced drawing course with concentration on developing the students' perceptual skills the representation of the human figure. Lab fee \$85. Prerequisites: ART 1103 and 1203.

ART 3013 Ceramics II – 3 hours (Fall)

An intermediate study of ceramic techniques with emphasis on wheel-throwing, glaze-testing and surface treatment. Lab fee \$85. Prerequisite: ART 2013.

ART 3023 Sculpture II – 3 hours (Spring)

Development of techniques in a variety of three-dimensional projects. Emphasis on artistic creativity. Lab fee \$85. Prerequisite: ART 2023.

ART 3033 Painting II – 3 hours (Fall)

An intermediate exploration of painting with an emphasis on the development of observational skills along with creative approaches to imagery, content and technique. Lab fee: \$85. Prerequisite: ART 2033.

ART 3043 Graphic Design Production – 3 hours (Spring)

Graphic design course to be concerned primarily with pre-press issues and topics, graphic design production and finishing methods, publication matters, and basic time-based media development. Lab fee \$75. Prerequisite: ART 2703.

ART 3103 Printmaking – 3 hours (Fall, Spring)

A course concerned primarily with commercial printing and/or traditional printmaking issues and topics. Lab fee \$85. Prerequisite: ART 2703.

ART 3203 Advanced Drawing Studio I – 3 hours (Fall, Spring)

An advanced, traditional drawing course with an emphasis on perceptual training and on artistic creativity. Prerequisite: ART 2203. Course Fee: \$70.

ART 3213 Advanced Drawing Studio II – 3 hours (Fall, Spring)

An advanced, traditional drawing course with an emphasis on perceptual training and on artistic creativity. Prerequisite: ART 3203. Course Fee: \$70.

ART 3323 Photography II – 3 hours (Fall)

An intermediate exploration of photography with an emphasis on commercial approaches to imagery, content and technique. Lab fee \$85. Prerequisite: ART 2003.

ART 3403 Advanced Ceramics Studio I – 3 hours (On demand)

An advanced study of ceramics with an emphasis on advanced ceramic techniques, glaze calculation and artistic creativity. Lab fee \$85. Prerequisite: ART 3013.

ART 3413 Advanced Ceramics Studio II – 3 hours (On demand)

An advanced study of ceramics with an emphasis on advanced ceramic techniques, glaze calculation and artistic creativity. Lab fee \$85. Prerequisite: ART 3403.

ART 3503 Advanced Sculpture Studio I – 3 hours (On demand)

Advanced problems in three-dimensional media. Emphasis on creativity. Lab fee \$85. Prerequisite: ART 3023.

ART 3513 Advanced Sculpture Studio II – 3 hours (On demand)

Continuation of ART 3503. Lab fee \$85.

ART 3603 Advanced Painting Studio I – 3 hours (On demand)

Advanced studies in painting problems and perceptual training. Time and topic arranged by student and instructor. Lab fee: \$85. Prerequisite: ART 3033.

ART 3613 Advanced Painting Studio II – 3 hours (On demand)

Continuation of ART 3603. Lab fee: \$85.

ART 3703 Graphic Design Concepts – 3 hours (Fall)

Intermediate-level graphic design course to be concerned primarily with related inter-media projects ranging from traditional print designs, to simple packaging, and basic visual presentation development. Lab fee \$75. Prerequisite: ART 2703.

ART 3713 Graphic Design Portfolio I – 3 hours (Fall)

Advanced team-oriented graphic design course to be concerned primarily with professional issues and topics in visual communication design. Work development for the course will necessarily build upon both conceptual and pragmatic understandings developed in Graphic Design Studio Production and Graphic Design Concepts. All projects assigned will involve design studio-business issues and topics. Continuation of ART 3703. Lab fee \$75.

ART 3723 Digital Imaging Concepts – 3 hours (Spring)

Concentrated study of image-based visual communication concepts and studio techniques. Lab fee \$75.

ART 3813 Fibers – 3 hours (Spring)

An introduction to the knowledge of various fibers and their use. Course fee \$75. Prerequisite: ART 1103.

ART 4001 Senior Seminar (capstone/senior show) – 1 hour (Fall, Spring)

This course is designed to facilitate preparation and presentation of the Senior Show. It should be taken in the last semester of coursework for both General Art and Commercial Art majors. Art Education majors cannot take this course the semester of student teaching; generally, it should be taken the semester before student teaching. A portion of this class will also be used to facilitate student preparation and divisional assessment of the Senior Portfolio Review prior to the Senior Show or Exit Exhibition. Course fee \$35.

ART 4003 Computer Application/Commercial Art – 3 hours (Fall, Spring)

Selected problems for the advanced graphic design student. This course may be repeated for a total of 12 credit hours and may be used as art core and/or general electives. Lab fee \$75. Prerequisite: ART 3043.

ART 4203 Advanced Drawing Studio III – 3 hours (On demand)

Continuation of ART 3213. Course fee: \$70.

ART 4213 Advanced Drawing Studio IV – 3 hours (On demand)

Continuation of ART 4203. Course fee: \$70.

ART 4303 Photography Senior Project – 3 hours (Spring)

Advanced-level imaging course developed to display advanced student achievement. Work developed for the course will build upon previous coursework in digital imaging. The course will consist of two major parts: Each student will propose and develop an approved, in-depth professional quality visual communication concept. In addition, each student will develop and provide a profession-oriented portfolio for exit review. Lab fee \$75. Required for completion of Digital Imaging concentration in Commercial Art.

ART 4313 Photography Portfolio – 3 hours (Fall)

Advanced-level digital imaging course to be concerned primarily with professional issues and topics in visual communication design. Work developed for the course will necessarily build upon both conceptual and practical understandings developed in previous coursework. All projects assigned will involve studio-business issues and topics. Emphasis on individual portfolio development. Lab fee \$75. Required for completion of Digital Imaging concentration in Commercial Art.

ART 4403 Advanced Ceramics Studio III – 3 hours (On demand)

Continuation of ART 3413. Lab fee \$85.

ART 4503 Advanced Sculpture Studio III – 3 hours (On demand)

Continuation of ART 3513. Lab fee \$85.

ART 4603 Advanced Painting Studio III – 3 hours (Fall, Spring)

Continuation of ART 3613. Lab fee: \$85.

ART 4613 Advanced Painting Studio IV – 3 hours (Fall, Spring)

Continuation of ART 4603. Lab fee: \$85.

ART 4703 Graphic Design Senior Project – 3 hours (Fall)

Advanced-level graphic design studio course developed to display advanced student achievement. Work developed for the course will build upon both conceptual and pragmatic understandings developed in Graphic Design Studio Production, Graphic Design Concepts, and Graphic Design Portfolio. The course will consist of two major parts: Each student will propose and develop an approved, in-depth professional quality visual communication concept. In addition, each student will develop and provide a profession-oriented portfolio for exit review. Lab fee \$75. Required for completion of Graphic Design concentration in Commercial Art.

ART 4713 Graphic Design Portfolio II – 3 hours (Spring)

Advanced graphic design course to be concerned primarily with professional issues and topics in visual communication design. Work developed for the course will necessarily build upon both conceptual and practical understandings developed in Graphic Design Studio Production, Graphic Design Concepts, and Graphic Design Portfolio I. All projects assigned will involve design studio-business issues and topics. Continuation of ART 3713. Emphasis on individual portfolio development. Lab fee \$75.

ART 495(1-4) Intensive Studies in Art – 1-4 hours

Selected problems for advanced student in one topic as approved by the division head. Lab fee \$85.

ART 4963 Practicum in Commercial Art – 3 hours (On demand)

Prerequisite: 30 hours completed.

ART 4983 Internship in Commercial Art – 3 hours (On demand)

On the job training in a professional setting. Prerequisite: ART 3713 and 72 hours completed.

ART 499(1-3) Independent Studies – 1-3 hours (Fall, Spring)

Advanced studies or creative art projects with specific topics approved by division head. Lab fee \$75.

Methods of Teaching Art, K-12 (Fall)

(See EDU 4512)

Athletic Training

ATH 2013 Intro to Sports Medicine – 3 hours (Fall)

A course designed to help students develop perspectives in the field of sports medicine. Students will examine the different areas of study within the field, kinds of programs, qualifications needed to enter the field, career opportunities, and issues facing exercise science professionals. Course fee \$62.

ATH 3003 Functional Anatomy: Above Diaphragm – 3 hours (Fall)

Prepares the student for the concepts, terminology, and basic structure of the human body. Dissection of the body will use the electronic media to determine the muscular structure of origin, insertion, innervations and how it connects to functional movement. Emphasis on providing fundamental knowledge of the structure/function of the musculoskeletal system, peripheral nervous system, ligamentous, joint capsular, and vascular supply to the trunk, head neck, and upper body.

ATH 3013 Athletic Training Techniques I – 3 hours (Fall)

Prepares student for basic care and prevention of athletic injuries to include the identification of common physical disorders, sports trauma, typical injury management, taping, bracing and medical documentation. Course fee \$62. Prerequisite: ATH 2013.

ATH 3021 Clinical I – 1 hour (Fall)

Student will learn and integrate athletic training principles and skills in a practical environment typically done on the campus of SBU with intercollegiate athletics. Course fee \$62.

ATH 3043 Functional Anatomy: Below Diaphragm – 3 hours (Spring)

Prepares the student to the concepts, terminology, and basic structure of the human body. Dissection of the body will use the electronic media to determine the muscular structure of origin, insertion, innervations and how it connects to functional movement. Emphasis on providing fundamental knowledge of the structure/function of the musculoskeletal system, peripheral nervous system, ligamentous, joint capsular, and vascular supply to the trunk, and lower body.

ATH 3093 Emergency Medicine – 3 hours

Prepares the student in the basics of emergency care focused on sports injuries. It is a comprehensive course for the athletic trainer who must initially evaluate and stabilize an athlete in a trauma situation. The course teaches rapid assessment, resuscitation, packaging and transportation of injured athletes. Prerequisites: ATH 2013

ATH 3103 Sports Performance – 3 hours (Spring)

Prepares the student to effectively manage the health care of the athlete by recognizing and implementing appropriate strategies to enhance sports performance based on sound physiological

principles including the use of drugs in sports performance, nutritional aspects, strength and resistive training, and anaerobic/aerobic training. Prerequisite: ATH 3013.

ATH 3114 Orthopedic Evaluation: Above Diaphragm – 4 hours (Spring)

Prepares the student to properly identify, examine and assess athletic injuries to the head, spine, upper extremity, and thorax. This course has a laboratory component with three lectures and one laboratory each week. Lab fee \$62. Prerequisite: ATH 3033.

ATH 3121 Clinical II – 1 hour (Spring)

Student will learn and integrate athletic training principles and skills in a practical environment typically done on the campus of SBU with intercollegiate athletics. This is an expansion of ATH 3021 Clinical I with increased roles and responsibilities. Prerequisite: ATH 3021.

ATH 3124 Orthopedic Evaluation: Below Diaphragm – 4 hours (Fall)

Prepares the student to properly identify, examine and assess athletic injuries to the lumbar spine & lower extremity. This course has a laboratory component with three lectures and one laboratory each week. Lab fee \$62. Prerequisite: ATH 3114.

ATH 3133 Pharmacology – 3 hours (Fall)

Prepares the student to understand physiology of pharmaceuticals, indications, contraindications and diverse side effects of common pharmaceuticals utilized within athletic realm. Prerequisite: ATH 3013.

ATH 4021 Clinical III – 1 hours (Fall)

Student will learn and integrate athletic training principles and skills in a practical environment typically done on the campus of SBU with intercollegiate athletics. This is an expansion of ATH 3121 Clinical II with increased roles and responsibilities. Course fee \$62. Prerequisite: ATH 3121.

ATH 4034 Treatment and Rehabilitation – 4 hours (Spring)

Prepares the student to select, implement and manage the most effective rehabilitative procedures for a given athletic injury to restore lost function to the athlete so the individual may return safely to desired field of competition. The psychosocial aspects of injury will be presented. This course has a laboratory component with three lectures and one laboratory each week. Lab fee \$62. Prerequisite: ATH 3124.

ATH 4121 Clinical IV – 1 hour (Spring)

Student will learn and integrate athletic training principles and skills in a practical environment typically done on the campus of SBU with intercollegiate athletics. This is an expansion of ATH 4021 Clinical III with increased roles and responsibilities. An emphasis will be placed on the rehabilitation and modalities domains. Prerequisite: ATH 4021.

ATH 4223 Functional Movement – 3 hours (Spring)

Prepares the student in the development of skills in assessment procedures and therapeutic intervention addressing functional movement, gait, posture and common pathologies that exist in human motion and function within the context of athletic performance. Prerequisites: ATH 4034.

ATH 4833 Evidenced Based Practice – 3 hours (Fall)

Prepares the student with the knowledge, skills and abilities necessary to make independent judgments about the validity, results, and application of clinical research and to implement evidence-based clinical practice in their careers. This course will focus on concepts of evidence-based practice with emphasis on forming answerable clinical questions and effective literature search strategies. Prerequisites: ATH 4034.

Behavioral Sciences

BEH 2001 Writing for the Behavioral Sciences – 1 hour (Fall, Spring)

This is a topical course emphasizing the content of the majors in behavioral sciences and the APA (American Psychological Association) style of writing.

BEH 2233 Introduction to Research – 3 hours (Fall, Spring)

This course will provide students with an overview of the various research methods in the behavioral sciences. Specific attention will be given to the different methods of assessment, evaluation, and research inquiry found in the fields of psychology, sociology, and social work. Prerequisites: PSY 1013, SOC 1003 or SWK 2003.

BEH 298 (1-3) Community Project. 1-3 hours (On demand)

An experiential course which allows the development of a quasi-volunteer/professional relationship of the student with a local agency, for the purposes of assisting that agency with a specific project related to the mission of that agency. A behavioral sciences faculty member will assist with arrangements. Prerequisite: either PSY 1013, SOC 1003, OR SWK 2003.

BEH 3001 Behavioral Sciences Careers: Exploration and Preparation – 1 hour (Fall, Spring)

This is a topical course emphasizing the career opportunities for behavioral science majors and graduate school preparation. Prerequisite: 64 hours completed.

BEH 3073 Social Psychology – 3 hours (Fall, Spring)

Survey of social psychology theories, research methods, and practical applications focusing on how people influence one another and are influenced by others. Includes topics such as attitudes and persuasion, friendships and romantic relationships, the self and social cognition, helping behavior, and group processes. Prerequisites: PSY 1013 or SOC 1003.

BEH 3243 Elementary Statistics – 3 hours (Fall, Spring)

Measurement, averages, variability percentile rank, normal curve, correlation, chi-square, probability, hypothesis testing, and confidence intervals related to the behavior sciences. Prerequisites: PSY 1013 or SOC 1003 or EDU 2113 and MAT 1243 or higher (Students with ACT math scores of 26 or higher or a CLT Quantitative Reasoning sub score of 21 or higher may elect to take the course without the prerequisite of MAT 1243).

BEH 4001 Professional Ethics in the Behavioral Sciences – 1 hour (Fall, Spring)

This a topical course for behavioral sciences majors, which emphasizes professional development and ethics of the profession and also serves as a capstone course for the purposes of integration and assessment. Prerequisite: 64 hours completed.

BEH 4233 Research Design and Methods – 3 hours (Fall even years)

Intensive analysis of experimental designs and methods of research including measurement issues, ethical considerations, sampling techniques, data-gathering techniques, data analysis and interpretation, presentations and reporting of results. Lab fee \$12. Prerequisites: BEH 3243.

BEH 4353 Agape Love and Altruism: Perspective of Science and Faith – 3 hours (On Demand)

An interdisciplinary approach to the examination of agape and altruistic love. Perspectives from the social and behavioral sciences, natural sciences, philosophy, and religion will be brought to the

discussion of agape love, unconditional love, altruism, prosocial behavior, emergency helping and benevolence. Prerequisites: SOC 1003 or PSY 1013 and 64 hours completed.

Bible

BIB 1013 Old Testament History – 3 hours (Fall, Spring)

A study of the history of Israel in the Old Testament with attention given to historical background, literary features, theological teaching, and contemporary relevance.

BIB 1023 New Testament History – 3 hours (Fall, Spring)

A study of the life of Jesus and the founding of the church in the New Testament with attention given to historical background, literary features, theological teaching, and contemporary relevance.

BIB/HON 1213 Honors Old Testament History – 3 hours (Fall)

A survey of the literature, history, and theology of the Old Testament with a concern for discerning its contemporary relevance. Prerequisite: Enrollment in the Dutile Honors Program or a minimum ACT of 28, an SAT of 1300, or a CLT score of 68.

BIB/HON 1223 Honors New Testament History – 3 hours (Spring)

A study of the life of Jesus and the founding of the church in the New Testament with attention given to historical background, literary features, theological teaching, and contemporary relevance. Prerequisite: Enrollment in the Dutile Honors Program or a minimum composite ACT of 28, an SAT of 1300, or a CLT score of 68.

BIB 2093 Methods of Biblical Interpretation – 3 hours (Fall)

Introduction to the task of interpreting the Bible in its literary and historical context and applying its teaching to modern life. Particular attention is given to principles concerning the qualifications and presuppositions of the interpreter, the nature of prose and poetic literature, and the character of the various genres found in both testaments.

BIB 295(1-3) Special Topics in Bible – 1-3 hours

Exegetical studies of key biblical passages (the course may be taken more than once). Prerequisite: BIB 1013 or 1023 or concurrent enrollment.

BIB 3033 Old Testament Exegesis 3: Poetry and Wisdom Literature – 3 hours (Fall, every other even year)

Historical and exegetical study of the poetry and wisdom literature in the Old Testament: Job, Psalm, Proverbs, Ecclesiastes and Song of Solomon. Prerequisite: BIB 1013/1213 and BIB2093.

BIB 3043 Old Testament Exegesis 1: Pentateuch – 3 hours (Fall, every other even year)

Study of the first five books of the Bible with special attention given to introductory problems related to the Pentateuch. Prerequisite: BIB 1013/1213, 2093.

BIB 3053 New Testament Exegesis 1: Early Pauline Epistles – 3 hours (Spring, every other even year)

Historical and exegetical study of Paul's epistles to the Thessalonians, Corinthians and Galatians. Prerequisite: BIB 2093.

BIB 3063 New Testament Exegesis 3: Later Pauline Epistles – 3 hours (Spring every other even year)

Historical and exegetical study of Romans, Paul's prison and pastoral epistles. Prerequisite: BIB 2093.

BIB 3083 New Testament Exegesis 4: Hebrews and General Epistles – 3 hours (Spring, every other odd year)

Historical and exegetical study of Hebrews and the general epistles. Prerequisite: BIB 2093.

BIB 4023 New Testament Exegesis 2: Gospels – 3 hours (Spring, every other odd year)

Study of life and teaching of Christ as presented in the four gospels. Prerequisites: BIB 2093.

BIB 4043 Old Testament Exegesis 4: Prophets – 3 hours (Fall, every other odd year)

Study of selected Prophetic Books of the Old Testament with attention given to exposition of their content, discernment of their theological significance, and discussion of scholarly issues. Prerequisites: BIB 1013/1223 and 2093.

BIB 4053 Old Testament Exegesis 2: Historical Books – 3 hours (Fall, every other odd year)

Study of the Historical Books of the Old Testament with attention given to exposition of their content, discernment of their theological significance, and discussion of scholarly issues. Prerequisites: BIB 1013/1213 and 2093.

BIB 4063 Intercultural Theologizing – 3 hours (Semester Abroad)

A study of how cultural and social convictions influence religious expressions, how the biblical message engages all cultures, and how the student's overseas context requires cross-cultural application of the gospel.

BIB/THE 4073 New Testament Theology – 3 hours (On Demand)

An introduction to the discipline of biblical theology as it is undertaken in relation to the New Testament. Included is a discussion of methods, attendant methodological and hermeneutical problems, and possible results in a survey of the theology of the New Testament. Can also be taken for theology credit. Prerequisite: BIB 2093.

BIB 495(1-4) Intensive Studies in Bible – 1-4 hours

Investigation of selected books of the Bible and/or biblical themes. Areas of study will vary from year to year (the course can be taken more than once.) Prerequisite: BIB 2093.

Biology

BIO 1001 Principles of Biology Lab – 1 hour (Fall, Winterfest, Spring, Summer)

A laboratory class accompanying BIO 1003. An introductory, multifaceted survey of biology including: cell theory, genetics, evolutionary theory, survey of living organisms, ecology, and human biology. One laboratory each week. Lab fee \$56. Corequisite: BIO 1003.

BIO 1003 Principles of Biology – 3 hours (Fall, Winterfest, Spring, Summer)

An introductory, multifaceted survey of biology including: cell theory, genetics, evolutionary theory, survey of living organisms, ecology, and human biology. Three lectures each week.

BIO 1115 Honors Biology – 5 hours (On demand)

An honors-level course presenting the basic facts and principles of biology. Topics covered will include cell structure and function, genetics, plant structure, physiology and animal anatomy and physiology. Four lectures, one lab each week. Lab fee \$60. Prerequisite: ACT score of 25 in Science Reasoning.

BIO 2134 General Zoology – 4 hours (Spring)

An introduction to the principles of classification of animals. Animal life will be examined with respect to cell organization, genetics, evolution, anatomy/physiology, and interaction of animals with their environment. Three lectures; one laboratory each week. Lab fee \$56. Prerequisite: BIO 1003, BIO 1001.

BIO 2204 Human Anatomy and Physiology I – 4 hours (Fall, Spring)

An introduction to the study of form and function of the human body. This course is the first in a two-semester sequence. Particular attention will be given to the study of cells, tissues, and metabolism, as well as the skeletal, muscular, respiratory and digestive systems. Three lectures, one laboratory each week. Lab fee \$100. Prerequisite: BIO 1003, BIO 1001 or ACT of 24 in Science Reasoning.

BIO 2213 Introduction to Microbiology – 3 hours (Spring)

An introduction study of general principles and microbiology, with emphasis on the morphology, physiology and taxonomy of microorganisms. Special emphasis on disease producing bacteria, viruses and fungi. Topics in applied microbiology, immunology, sterilization and disinfection introduced. Two lectures, one laboratory each week. Lab fee \$30. Prerequisites: BIO 1003, BIO 1001 or BIO 2204 and CHE 1003/CHE 1001 or CHE 1103/CHE 1101 or CHE 1114/CHE 1111. *Note:* A student who takes BIO 2213 and 3314 will receive credit only for BIO 3314.

BIO 2214 Environmental Biology – 4 hours (Fall, odd years)

An objective contemporary study of the environment and man's effect upon it. A holistic approach is taken in studying relevant problems relating to population growth, pollution and the preservation of natural ecosystems.

BIO 2223 Invertebrate Zoology – 3 hours (On demand)

Examination of the morphology, physiology and taxonomy of the invertebrates. Two lectures, one laboratory each week. Lab fee \$54.

BIO 2234 General Botany – 4 hours (Fall)

A study of the plant world. Fungi, algae, bryophytes, seedless vascular plants, gymnosperms and angiosperms will be studied with regard to their life history, morphology, physiology and taxonomic relationships. Three lectures, one lab each week. Lab fee \$56. Prerequisite: BIO 1003, BIO 1001.

BIO/KIN 2243 Nutrition – 3 hours (Fall, Spring)

Nutritional requirements of mankind with emphasis on the roles of nutrients in the body throughout the life cycle. *Note:* This course may not be included in the curriculum for a biology major.

BIO 295(1-4) Special Topics – 1-4 hours (On demand)

Topics of special interest not available to the student from the traditional course offerings. May be repeated as the topics change. Lab fee will be based on topic.

BIO/CHE 3012 Methods in Scientific Research – 2 hours (Fall, Spring)

A study of the principles and techniques used to develop and construct a scientific proposal. Topics include statistical analysis, experimental design, developing a proposal, determining a budget, and scientific presentations. Two lectures each week. Prerequisites: Biology/chemistry major or minor with 64 hours completed.

BIO 3304 Human Anatomy and Physiology II – 4 hours (Fall, Spring)

This course is a continuation of Biology 2204. Areas of study will include: the nervous, endocrine, circulatory, lymphatic, and the urogenital systems. Three lectures, one laboratory each week. Lab fee \$100. Prerequisite: BIO 1003, BIO 1001 or BIO 2204.

BIO 3314 Microbiology – 4 hours (Fall)

A study of the cultural characteristics, morphology, metabolism, taxonomy and infection of microorganisms, with emphasis on methods of isolation, growth and identification. Three lectures, one laboratory each week. Lab fee \$56. Prerequisites: BIO 1003, BIO 1001 and CHE 1114/CHE 1111.

BIO 3322 Introduction to Immunology – 2 hours (Spring)

Fundamental principles of immunology and serology. The structure and function of the immune system, antigen-antibody interaction, other serological reaction, immunoglobulin formation and immunosuppression. Two lectures each week. Prerequisite: BIO 3314.

BIO 3324 Genetics – 4 hours (Fall)

Consideration of the nature, transmission, variation, and action of the hereditary material in relation to the laws and theories of heredity in both plants and animals. Three lectures, one laboratory each week. Lab fee \$106. Prerequisite: BIO 1003, BIO 1001.

BIO 3334 Ecology – 4 hours (Spring)

Study of the relations of animals and plants to each other and to their environment. Three lectures, one laboratory each week. Lab fee \$56. Prerequisite: BIO 1003, BIO 1001. (BIO 2134 and 2234 recommended.)

BIO 3335 Comparative Vertebrate Anatomy – 5 hours (On demand)

Comparative study of organs and organ systems of selected representative vertebrates. Three lectures, two laboratories each week. Lab fee \$78. Prerequisite: BIO 1003, BIO 1001 and 64 hours completed.

BIO 3344 Vertebrate Physiology – 4 hours (On demand)

Study of the functional process of vertebrate organs and organ systems and their physiological integration. Three lectures, one laboratory each week. Lab fee \$56. Prerequisites: BIO 1003, BIO 1001 and 2134 and CHE 1114/CHE 1111.

BIO 3354 Plant Taxonomy – 4 hours (Spring, even years)

A study of the principles of classification and nomenclature, a survey of the major vascular plant families and the identification of local plants. Two lectures, two laboratories each week. Lab fee \$56. Prerequisite: BIO 2234.

BIO/CHE 3364 Biochemistry – 4 hours (Fall)

A study of the chemistry and metabolism of biologically important compounds. Includes the biochemistry of proteins, lipids and carbohydrates, nucleic acids and the energetics of living organisms. Three lectures and one laboratory each week. Lab fee \$106. Prerequisite: CHE 3314. CIS 1103 is strongly recommended.

BIO 3384 Histology – 4 hours (Fall, even years)

A systematic cytological and histological study of animal tissues and organs with an introduction to basic histological procedures. Two lectures, two laboratories each week. Lab fee \$56. Prerequisites: BIO 2204 and 3304 or 3335

BIO 3394 Pathogenic Microbiology – 4 hours (Spring, odd years)

The study of pathogenic microorganisms, their mode of transmission, infection and control as they relate to humans. Bacterial, viral, fungal and parasitic diseases will be studied. Three lectures, one lab each week. Lab fee \$56. Prerequisite: BIO 3314.

BIO 3454 Plant Physiology – 4 hours (On demand)

Study of the principal physiological processes in plants. Topics include respiration, photosynthesis, biosynthesis of cellular constituents, mineral nutrition, transpiration, translocation, water relations, growth and development, hormones and plant responses to environmental variation. Three lectures, one lab each week. Lab fee \$56. Prerequisite: BIO 2234.

BIO 3544 Wildlife Biology – 4 hours (Fall, even years)

A study of the principles and techniques used to manage and measure animal populations. Topics include managing endangered species and game animals, the impacts of habitat fragmentation on wildlife populations, and the use of habitat corridors. Three lectures, one laboratory each week. Lab fee \$56. Prerequisites: BIO 1003, BIO 1001, BIO 2134 (BIO 3334 recommended).

BIO/CHE 4104 Biochemistry II – 4 hours (Spring, even years)

A continuation of Biochemistry focusing on the processes of energy transduction and storage and synthesis of biomolecules. Lab fee \$98. Prerequisites: CHE/ BIO 3364 or CHE 3314.

BIO 4224 Cell and Molecular Biology – 4 hours (Spring)

The study of the structure and function of cellular organelles, cell transport, signal transduction, apoptosis, and cell cycle. DNA, transcription, translation, replication, control, repair, and gene expression will be studied as well as an introduction to bioinformatics within these disciplines. Three lectures, one laboratory each week. Lab fee \$106. Prerequisites: BIO 1003, BIO 1001 and 64 hours completed.

BIO 4404 Pathophysiology – 4 hours (Spring)

The study of human diseases and the mechanisms that govern them. Four lectures each week. Prerequisites: BIO 2204 and BIO 3304 and 64 hours completed.

BIO 4414 Freshwater Biology – 4 hours (On demand)

Study of the freshwater ecosystem. The course is designed to include four major areas: water chemistry, including characteristics of lakes, rivers and streams; plankton, including algae and zooplankton; fisheries; and aquatic entomology. Three lectures, one laboratory each week. Lab fee \$56. Prerequisites: BIO 1003, BIO 1001 and 64 hours completed.

BIO 4444 Vertebrate Embryology – 4 hours (On demand)

Study of the embryological development of the vertebrate and controlling mechanisms involved. Two lectures, two laboratories each week. Lab fee \$56. Prerequisites: BIO 1003, BIO 1001, BIO 2134, and 64 hours completed.

BIO 4471 Seminar in Biology – 1 hour (Fall, Spring)

Investigation of biological literature related to selected topics and presentation of scientific material for group discussion and evaluation. One session each week. Prerequisite: Biology major or minor with 96 hours completed.

BIO 448(1-3) Biological Investigations – 1-3 hours (Fall, Spring)

Opportunity for qualified biology majors to conduct investigations in association with staff members on an acceptable phase of biology. By arrangement. Lab fee will be based on project. Prerequisites: Biology major or minor and 64 hours completed.

BIO 498(1-3) Internship in Biology – 1-3 hours (Fall, Spring, Summer)

A course designed to give the student on-the-job experience in the area of student's major. The purpose is to gain practical experience and enhance the student's educational preparation at SBU. Prerequisite: Biology major or minor and 64 hours completed.

BIO 495(1-4) Intensive Studies in Biology – 1-4 hours (On demand)

Intensive studies of special topics in biology. Topics will vary from time to time. The course may be repeated for different topics. Credit hours will be determined at the time of course planning. Lab fee will be based on course.

BIO 499(1-3) Independent Studies – 1-3 hours (Fall, Spring)

Advanced studies of specific topics arranged by division head.

Methods of Teaching Science in the Middle and Secondary Schools

(See EDU 4522).

Business

BUS 1013 Introduction to Business – 3 hours (Fall)

Introduction to the characteristics and practices of business in the American free enterprise system, including the environments of business and career opportunities in business. Open to all students except junior and senior Accounting and Business Administration majors.

BUS/MAT 1193 Business Calculus – 3 hours (Fall, Spring)

This course studies derivatives and antiderivatives of functions, inclusive of exponential and logarithmic functions, with applications to business and economics. This course is not open to mathematics majors. Prerequisite: MAT 1243 or its equivalent with a minimum grade of C, MAT 1163 or its equivalent with a minimum grade of C, or score of 24 or higher on the Math ACT. *Note:* MAT 1193 is a terminal math course. Students desiring further study of calculus must take MAT 1195. Also, a student who takes BUS/MAT 1193 and MAT 1195 will receive credit for only MAT 1195.

BUS 2013 Business Communications – 3 hours (Fall, Winterfest, Spring)

A general introduction to the uses of communication in the business world today. Four major sections include basic language usage; communication foundations and writing principles; business letters, memos and emails; and problem analysis and report writing. Prerequisite: ENG 2213.

BUS 2023 Business Statistics – 3 hours (Fall, Spring)

An introduction to business statistics. Students will calculate and interpret measures of center and dispersion. Normal, binomial, Chi-square, F, t, and Poisson distributions, elementary probability, sampling techniques, hypothesis testing, confidence intervals, linear correlation, simple and multiple regression, contingency tables and computer applications are also covered. Prerequisite: MAT 1243.

BUS (2-3)06(1-2) PBL Practicum – 1-2 hours (Fall, Spring)

PBL Practicum is a course designed to enhance the benefits to be gained from participation in Phi Beta Lambda, the collegiate division of Future Business Leaders of America. Students will learn how to properly conduct business meetings, direct projects, work in teams to accomplish objectives and prepare business-related reports. Students may earn up to four hours of cumulative credit for this course.

BUS 295(1-4) Special Topics in Business – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

BUS 3073 Legal Environment of Business I (Business Law I) – 3 hours (Fall, Spring, Summer)

Ethical, social and legal issues in business environment. The development and resolution of contemporary issues found in the business environment. Emphasis on the perspective and systematic approach to the law to such issues. Topical areas: legal history, reasoning, procedure; environmental, administrative, criminal and tort law; law of contracts, law of sales. Prerequisite: 24 credit hours completed.

BUS 3083 Business Enterprise/Debtor and Creditor Rights (Business Law II) – 3 hours (Spring, odd years)

Legal alternatives in the structuring of the business enterprise and its relationships with employees. The rules of law governing financial transactions in today's business and personal affairs. Topical areas: agency, partnerships, corporation, personal property, real property, bailments, intellectual property rights, commercial paper, secured transactions and bankruptcy. Prerequisite: BUS 3073.

BUS 4053 International Business – 3 hours (Spring)

Introduction to the multinational business organization and environmental factors of international business. Emphasis on the development of sound problem-solving, decision-making methods in the analysis of environmental and organizational variables. The course also examines strategies for firms involved in marketing across national borders and in other countries. Special attention is given to planning and implementing marketing mix variables in international settings. Prerequisites: MGT 3013 and MKT 3023.

BUS 477(1-3) International Experience – 1-3 hours (Fall, Spring, Summer, Winterfest)

Inter-cultural experience and international travel. Requires a minimum of four weeks spent outside of the United States. For International Business program students, the country should ideally correspond to the specific modern language chosen in the degree plan. Students are responsible for costs of international travel and activities, in addition to the tuition.

BUS 495(1-4) Intensive Studies in Business – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

BUS 498(1-3) Internship in Business – 1-3 hours (Fall, Spring, Summer, Winterfest)

Academically planned and supervised work experience in area(s) of the student's major within business or other organizations, approved by the faculty advisor and division head as an enhancement to the student's educational preparation at SBU. Written reports will be required of the student and performance reports from the employer. A maximum of six semester hours of internships may be applied to the major. Prerequisite: 60 credit hours completed.

BUS 499(1-3) Independent Study in Business – 1-3 hours (On demand)

Independent study of some problem or area not covered in the organized courses under the direction of a faculty member in whose field of specialization the problem or area lies. Prerequisites: 3.00 GPA in major field and 60 credit hours completed.

Chemistry

CHE 1001 Chemistry for Allied Health Lab – 1 hour (Fall)

A laboratory class to accompany CHE 1003. The study of the fundamentals of general chemistry, organic chemistry, and biochemistry. One laboratory each week. Does not satisfy the major or minor requirements for chemistry. Lab fee \$52. Corequisite: CHE 1003. Prerequisite: High school algebra.

CHE 1003 Chemistry for Allied Health – 3 hours (Fall)

The study of the fundamentals of general chemistry, organic chemistry, and biochemistry. Three lectures each week. Does not satisfy the major or minor requirements for chemistry. Prerequisite: High school algebra.

CHE 1101 Principles of Chemistry Lab – 1 hour (On Demand)

A laboratory class to accompany CHE 1103. Fundamentals of chemistry, i.e., atomic structure, chemical periodicity, terminology, equations, kinetics, energy relationships, nuclear and descriptive chemistry. One laboratory each week. Does not satisfy the major or minor requirements for chemistry. Lab fee \$60. Co-requisite: CHE 1103. Prerequisite: High school algebra.

CHE 1103 Principles of Chemistry – 3 hours (On Demand)

Fundamentals of chemistry, i.e., atomic structure, chemical periodicity, terminology, equations, kinetics, energy relationships, nuclear and descriptive chemistry. Three lectures each week. Does not satisfy the major or minor requirements for chemistry. Prerequisite: High school algebra.

CHE 1111 General Chemistry I Lab – 1 hour (Fall)

A laboratory class to accompany CHE 1114. A study of the fundamental laws and theories involved in chemical changes. Topics will include atomic theory, thermochemistry and nuclear chemistry. Stress will be on the solving of mathematical problems which illustrate the principles of chemistry. The course is designed principally for students planning on careers related to the natural sciences. One laboratory each week. Lab fee \$75. Co-requisite: CHE 1114. Prerequisite: MAT 1243 or concurrent enrollment. *Note:* A student who takes CHE 1103 and CHE 1101 and CHE 1114 and CHE 1111 will receive credit for only CHE 1114 and CHE 1111.

CHE 1114 General Chemistry I – 4 hours (Fall)

A study of the fundamental laws and theories involved in chemical changes. Topics will include atomic theory, thermochemistry and nuclear chemistry. Stress will be on the solving of mathematical problems which illustrate the principles of chemistry. The course is designed principally for students planning on careers related to the natural sciences. Four lectures each week. Prerequisite: MAT 1243 or concurrent enrollment. *Note:* A student who takes CHE 1103 and CHE 1101 and CHE 1114 and CHE 1111 will receive credit for only CHE 1114 and CHE 1111.

CHE 1121 General Chemistry II Lab – 1 hour (Spring)

A lab course accompanying CHE 1124. A continuation of CHE 1114 covering chemical equilibrium, oxidation-reduction, acid-base theory, thermodynamics, chemical kinetics, the basics of coordination chemistry, and an introduction to organic chemistry. One laboratory each week. Lab fee \$75. Co-requisite: CHE 1124. Prerequisite: CHE 1114 and CHE 1111.

CHE 1124 General Chemistry II – 4 hours (Spring)

A continuation of CHE 1114 covering chemical equilibrium, oxidation-reduction, acid-base theory, thermodynamics, chemical kinetics, the basics of coordination chemistry, and an introduction to organic chemistry. Four lectures each week. Prerequisite: CHE 1114 and CHE 1111.

CHE 295(1-3) Special Topics in Chemistry – 1-3 hours (On demand)

Topics of special interest not available to the student from the traditional course offerings. May be repeated as the topics change. Lab fee \$14-\$42 as necessary. Prerequisite: CHE 1124/CHE 1121.

CHE 3002 Environmental Chemistry – 2 hours (On demand)

The study of the sources, reactions, transport, effects and fates of chemical species in water, soil, air and living environments and the effects of technology thereon. Two lectures per week. Prerequisite: CHE 1124/CHE 1121.

CHE/ BIO 3012 Methods in Scientific Research – 2 hours (Fall, Spring)

A study of the principles and techniques used to develop and construct a scientific proposal. Topics include statistical analysis, experimental design, developing a proposal, determining a budget, and scientific presentations. Two lectures each week. Prerequisites: Biology/chemistry major or minor with 64 hours completed.

CHE 3304 Organic Chemistry I – 4 hours (Fall)

Study of the theory and mechanisms of the basic reactions of organic compounds and their derivatives. Emphasis on alkyl halides, alkanes, alkenes, stereochemistry, alicyclics, alkynes and dienes. Three lectures, one laboratory each week. Lab fee \$76. Prerequisite: CHE 1124/CHE 1121. CIS 1103 is strongly recommended.

CHE 3314 Organic Chemistry II – 4 hours (Spring)

Continuation of CHE 3304. Emphasis on aromatic compounds, interpretive spectroscopy, alcohols, carboxylic acids and their derivatives, aldehydes, ketones, amines and ethers. Three lectures, one laboratory each week. Lab fee \$76. Prerequisite: CHE 3304.

CHE 3323 Physical Chemistry – 3 hours (Fall, even years)

Study of physicochemical systems, kinetic theory, thermodynamics, chemical equilibria and solutions. Three lectures each week. Prerequisites: CHE 1124/CHE 1121, MAT 1195.

CHE 3345 Analytical Chemistry – 5 hours (Spring, odd years)

Study of the fundamental principles of quantitative analytical chemistry including basic statistics. An intensive laboratory experience which applies these principles to gravimetric, volumetric and electroanalytical determinations. Three lectures, two labs each week. Lab fee \$90. Prerequisite: CHE 1124/CHE 1121.

CHE 3354 Instrumental Analysis – 4 hours (Fall, even years)

Study of the basic principles of instrumental methods of analysis. Topics studied include optical methods, chromatographic methods and selected other modern methods. Three lectures, one laboratory each week. Lab fee \$56. Prerequisites: CHE 3304 or concurrent enrollment and either PHY 1124/PHY 1121 or PHY 2224/PHY 2221.

CHE/BIO 3364 Biochemistry – 4 hours (Fall)

A study of the chemistry and metabolism of biologically important compounds. Includes the biochemistry of proteins, lipids and carbohydrates, nucleic acids and the energetics of living organisms. Three lectures, one laboratory each week. Lab fee \$106. Prerequisite: CHE 3314. CIS 1103 is strongly recommended.

CHE 3371 Seminar in Chemistry I – 1 hour (Spring)

Presentation and discussion of modern developments in the field of chemistry. One session each week. Prerequisite: CHE 3304.

CHE 4002 Interpretive Spectroscopy – 2 hours (On demand)

The study of the four main spectral techniques used for the identification of known organic compounds and for the determination of the structures of unknown organic compounds – infrared spectroscopy (IR),

proton nuclear magnetic resonance spectroscopy (PMR), carbon-13 nuclear magnetic resonance spectroscopy (CMR) and mass spectroscopy (MS). Two lectures per week. Prerequisite: CHE 3314.

CHE/BIO 4104 Biochemistry II – 4 hours (Spring, even years)

A continuation of Biochemistry focusing on the processes of energy transduction and storage and synthesis of biomolecules. Lab fee \$98. Prerequisites: CHE/ BIO 3364 or CHE 3314.

CHE 4333 Analysis of Evidence – 3 hours (Fall, odd years)

A laboratory intensive study on the gathering and analyzing of crime scene evidence. One lecture, two laboratory periods each week. Lab fee \$98. Prerequisites: CHE 1124/CHE 1121.

CHE 4412. Advanced Chemistry Lab – 2 hours (Spring)

A laboratory intensive study incorporating laboratory experience from multiple upper level chemistry classes. Two laboratory periods each week. Lab fee \$98. Prerequisites: CHE 3323 or CHE 4413.

CHE 4413 Advanced Inorganic Chemistry – 3 hours (Fall, odd years)

Principles and theories of modern inorganic chemistry, including group theory, bonding, coordination chemistry and relationships of the periodic table. Three lectures each week. Prerequisites: CHE 3314.

CHE 4471 Seminar in Chemistry II – 1 hour (Spring)

Presentation and discussion of modern developments in the field of chemistry. One session each week. Prerequisite: CHE 3314.

CHE 448(1-3) Undergraduate Research in Chemistry – 1-3 hours (Fall, Spring)

Independent research investigations. May be repeated with consent of division. Lab fee \$14-\$42. Consent of division head or research director required. Prerequisites: CHE 3314 and CHE 3345.

CHE 495(1-5) Intensive Studies in Chemistry – 1-5 hours (On demand)

Topics of special interest not available to students in the traditional course offerings. Courses could include such topics as advanced organic chemistry, nuclear chemistry, quantum chemistry, reaction kinetics and polymer chemistry. May be repeated as topics change. Lab fee \$14-\$70 as necessary. Prerequisites: Determined by the nature of topics studied.

CHE 499(1-3) Independent Study – 1-3 hours (On demand)

Intensive individual study in areas of chemistry not usually covered in the normal curriculum. Prerequisites: Determined by the nature of topics studied. Consent of division head required.

Methods of Teaching Middle School and Secondary Science

(See EDU 4522).

Christian Education

CED 2003 Introduction to Christian Education – 3 hours (Spring, even years)

A study of Christian education including history, faith development and Christian conversion, leadership, curriculum and facilities.

CED 2033 Principles of Teaching in the Church – 3 hours (Fall)

Basic principles and concepts of Christian teaching formulated and projected into planning and presented in church-related learning experiences.

CED 2062 Drama in the Church and Community – 2 hours (Spring, on demand)

A practical application course with special emphasis given to the role of drama in the church and community. Includes a study of various types of drama, organizational methods for the establishment of an on-going program and review of resources.

CED 295(1-4) Special Topics in Christian Education – 1-4 hours

A focus on special topics in the field of Christian education.

CED 3013 Youth Ministry in the Church – 3 hours (Spring, odd years)

A study of the objectives, organization and methodologies for youth, ages 12-17, and the directing of a youth program.

CED 3023 Church Administration – 3 hours (Fall, odd years)

A functional study including duties of church officers and committees, constitutions, by-laws, and parliamentary procedure.

CED 3043 Children's Ministry – 3 hours (Fall, even years)

A study of ministries involving children from birth through sixth grade to include but not limited to Bible study methods, vacation Bible school, children's worship, child care facilities in the church, and child care during church events.

CED 4003 Adult Ministry in the Church – 3 hours (Fall, odd years)

A study of the development tasks of adulthood and ministries with adults in the church.

CED 4053 Youth Discipleship and Evangelism – 3 hours (Spring, even years)

A study of (1) the challenges of youth and their culture (including suicide, pregnancy, parental problems, drugs) and (2) evangelism strategies, events and programs designed to reach unchurched youth.

CED 495(1-4) Intensive studies in Christian Education – 1-4 hours

Focus on special areas of interest in the Christian education field. Topic will vary from year to year. (May be taken more than once).

CED 498(1-6) Apprenticeship in Christian Education – 1-6 hours (Fall, Spring, Summer)

On-the-job training under the supervision of a full-time minister of education, minister of childhood education or youth minister. Includes observation, supervision, planning, instruction, guided practical leadership and evaluation. Prerequisite: Major in Christian Education (concentrations in general Christian education, youth ministry or children's ministry) or minor in student ministries and 96 hours completed. *Note:* Apprenticeships are not paid positions; the student learns under the supervision of a qualified staff member. Assignment of apprenticeships is made strictly by the SBU faculty member involved, not by the student or a particular church.

Christian Ministries

CHR/MUS 023(0-1) Worship Lab – 0-1 hour (Fall, Spring)

Laboratory in worship planning and worship leadership. Attendance at a designated number of division-sponsored learning and discussion events, plus assignment to worship-leading teams for rehearsal and participation in worship-leading opportunities.

CHR 2011 Introduction to Christian Service – 1 hour (Spring)

Applied ministry service under the supervision of a church staff member in a local church. Includes guided practical service and evaluation. *Note:* Christian service opportunities are not paid positions; the

student learns under the supervision of a qualified staff member. Final approval of local churches are made by the SBU faculty member involved, not by the student or a particular church.

CHR/MUS 2712 Worship Leading for Small Groups – 2 hours (Spring, odd years)

See MUS 2712 for course description.

CHR 295(1-3) Special Topics in Christian Ministries – 1-3 hours (On demand)

A focus on special topics in the field of Christian Ministries.

CHR 3013 Introduction to Ministry – 3 hours (Fall, odd years)

Study of the work of the vocational ministers of the local church with special attention given to the ministry of all believers.

CHR 3073. Introduction to Disciple-making and Evangelism 3 hours (Spring)

This course is an introduction to the biblical basis of discipleship and evangelism and a closer look at contemporary models for discipleship and evangelism methods. The course is designed to help students develop effective methods for discipleship to help believers to become reproducible Christians and also how to share the gospel in a variety of contexts.

CHR/MUS 3752 Instrumental Ministry in the Church – 2 hours (Spring, even years)

A practical study of the use of instrumental music in the church, including all aspects of instruments in music ministry. Techniques and materials used by the church pianist and organist involving hymn playing, modulation, transposition, improvisation, and accompanying choirs and soloists. The use of band and orchestra instruments in varying combinations and the use of handbells in music ministry. Prerequisite: Two semesters of piano (or organ) or permission of instructor.

CHR/MUS 3783 Worship and Song in the Church – 3 hours (Fall)

A historical survey of the worship practice and congregational song of the major Christian denominations with an emphasis on planning worship for today's churches.

CHR 4003 Expository Preaching – 3 hours (Spring, odd years)

A study is made of the expository method of preaching. Sermons by recognized expository preachers are considered. Each student develops expository sermons and presents one sermon for video-taping and review. Prerequisite: CED 2033.

CHR/MUS 4101 Church Music Technology – 1 hour (Spring, even years)

An introductory overview of the technology available to church musicians. Prerequisite: CIS 1103.

CHR/MUS 4743 Church Music Administration – 3 hours (Fall, odd years)

Study of the functional approach to the church music ministry including organization, administration, budget, calendar, scheduling, purchase and maintenance of equipment, rehearsal, performance, service planning, congregational activities and staff relations.

CHR 495(1-4) Intensive Studies in Christian Ministries – 1-4 hours

A focus on a special area of interest in the field of Christian Ministry. Areas of study will vary from year to year. (May be taken more than once).

CHR 498(1-3) Christian Ministries Apprenticeship – 1-3 hours (Fall, Spring)

Guidance of an apprentice in direct relationship to the practice of ministry. Apprenticeships may be completed in the following areas: associational, chaplaincy, and pastoral ministries. Prerequisite: 96 hours completed. *Note:* Apprenticeships are not paid positions; the student learns under the supervision of a qualified mentor. Assignment of apprenticeship is made strictly by the SBU faculty member involved,

not by the student or a particular church. During the semester in which students enroll in this course they are not allowed to enroll in more than 16 total hours, except when the on-site work of the apprenticeship is completed during the summer.

Communication

COM 1013 Media and Society – 3 hours (Fall)

A study of communication strategies in mass media. The history, development and current structures of the media and their effects on society.

COM 1103 Fundamentals of Speech Communication – 3 hours (Fall, Spring)

Foundations of speech communication. Special attention to the theory and practice of effective preparation and delivery of public speeches.

COM 2023 Introduction to Sports Communication – 3 hours (Spring)

This course offers an introduction to communication through the lens of sports. Students will explore the history of sports communication through the present through analyzing message strategies within the field of sports. Special attention will be paid to public relations, interpersonal, organizational, and mediated communication through the lens of the sports industry.

COM 2033 Introduction to Digital Video – 3 hours (Fall)

An introduction to digital video production. Students will learn all the fundamentals of digital video production including: editing, writing, shooting, directing, and producing. Students will demonstrate their skills by producing various projects such as music videos, interviews and news segments. Course fee \$50.

COM 2123 Introduction to Health Communication – 3 hours (Spring)

An introduction to health communication. Students will learn how communication not only affects but is intertwined with issues of health and medicine. This course is designed to help students understand how communication within the health industry operates and the role they can play within the industry. Special attention will be paid to how health communication specialists work in hospital education departments, in public relations, marketing, and human resource departments, in patient advocacy programs, and in media organizations covering health issues.

COM/HON 2213 Honors Fundamentals of Speech Communication – 3 hours (Spring)

Foundations of speech with emphasis upon speech preparation and delivery. Exploration of classical and contemporary rhetorical principles. Prerequisite: minimum ACT of 25, a SAT of 1200 or a CLT score of 78 and/or enrollment in COM 4413.

COM 2223 Argumentation and Debate – 3 hours (Fall)

Emphasis on methods and theories of argumentation and debate. Attention to research, analysis, case building and oral participation. Prerequisite: ENG 1113 and COM 1103.

COM 2233 Introduction to Public Relations – 3 hours (Fall)

Emphasis upon understanding the theoretical foundations of public relations. Attention to practical methods and steps in conducting the processes and activities of public relations.

COM 2393 Interpersonal Communication – 3 hours (Fall, Spring)

Theory and practice of effective interpersonal encounters. Special attention to listening, language, self-perception, interviewing and nonverbal communication.

COM 295(1-4) Special Topics – 1-4 hours

COM 3003 Communication Theory – 3 hours (Spring, odd years, On demand)

Survey of theories in interpersonal, small group, organizational, rhetorical, mass media, and cultural communication contexts. Special emphasis on using theoretical knowledge to improve communication skills. Prerequisite: COM 1103.

COM 3013 Rhetorical Theory and Criticism – 3 hours (Fall, odd years)

This course offers in-depth exploration of both the theoretical and methodological aspects of rhetorical studies. Since rhetorical theories are foundational to the study and practice of effective communication, students will learn how to use both historical and contemporary rhetorical theories to analyze a variety of important texts including speeches, films, advertising campaigns, and any other type of persuasive discourse. Prerequisite: COM 1103 or COM 2393.

COM 3043 Communication Research Methods – 3 hours (Spring, even years)

This course offers systematic study of the various types of research methodologies used in the communication discipline. Students will learn the basics of investigating communication phenomena using social scientific, qualitative and critical rhetorical methods. Prerequisite: COM 1103 or COM 2393 and COM 3003.

COM 3063 Digital Video Journalism – 3 hours (Spring)

Students will acquire the knowledge and skills necessary to become digital video journalist professionals and will receive advanced training in interviewing, writing, and producing. Prerequisite: COM 2033. Course fee \$50.

COM 3163 Nonprofit Public Relations – 3 hours (Fall, odd years)

This course offers exploration of the unique persuasive and organizational challenges associated with being a public relations practitioner in the nonprofit sector. Students will learn how to develop and implement public relations plans that will effectively communicate with a variety of target audiences. Students will also learn about various nonprofit public relations essentials such as fundraising, establishing corporate partnerships, promoting nonprofit organizations through special events, and maximizing the use of the internet and social media. Prerequisite for Communication Majors: COM 2223 and COM 2233.

COM 3263 Public Relations and Crisis Management – 3 hours (Spring)

Students in this course will learn relevant theories and practice the various communication skills necessary to develop and implement public crisis response plans. Significant emphasis will be placed upon the examination of historical and contemporary case studies of both effective and ineffective instances of crisis management. Prerequisite for Communication Majors: COM 2223 and COM 2233.

COM 3283 Persuasion: Theory and Practice – 3 hours (Fall)

Theories and practice of persuasion and social influence. Prerequisite: COM 1103.

COM/THR 3303 Oral Interpretation of Literature – 3 hours (Fall, even years)

Emphasis on theory and practice of communicating works of literature from the printed page. Prerequisite: COM 1103. Course Fee: \$10.

COM 3313 Advanced Public Speaking – 3 hours (Spring)

Advanced study of preparation and delivery of various speech types. Special attention to extemporaneous and manuscript speaking. Prerequisite: COM 1103.

COM 3333 Intercultural Communication – 3 hours (Spring, odd years, Winterfest, even years)

This course will cover a wide variety of intercultural issues as they pertain to media, religion, business, politics, education, health care and interpersonal communication. A balanced emphasis will be placed on developing intercultural awareness and competence. Prerequisite: COM 1103.

COM 3343 Multi-Media Productions for Nonprofit Organizations – 3 hours (Fall, On demand)

This course will prepares students to design and produce multi-media campaigns suitable for nonprofit organizations. Students will design campaigns which utilize television, radio, print, graphics, and various other media. Course fee \$50.

COM 3351 Intercollegiate Forensics and Debate – 1 hour (Fall, Spring)

Participation in intercollegiate debate and forensics program. May be repeated; however, only 6 hours may count toward a major. Prerequisite: COM 1103.

COM 3353 Organizational Communication – 3 hours (Fall)

This course allows students to study how communication intersects with organizational life and culture on both the theoretical and practical levels. Special emphasis will be given to how organizations use communication to function and how students can communicate effectively within a wide array of organizational contexts. Prerequisite: COM 1103 or COM 2393.

COM 3361 Student Media Practicum – 1 hour (Fall, Spring)

Guided practical experience in college newspaper production. May be repeated; however, only 6 hours may count toward a major.

COM 3363 American Public Address – 3 hours (Spring, odd years)

Historical and critical study of leading American speakers, their speeches and philosophies. Individual research and analysis. Prerequisite: COM 1103.

COM 3373 Writing and Editing for Journalism – 3 hours (Spring)

An emphasis upon the essentials of journalism writing. Special attention to principles and skills required to gather, write and edit newspaper stories. Lab fee \$10. Prerequisite: ENG 1113 and COM 1103.

COM 3383 Small Group Communication – 3 hours (Fall, even years)

Systematic study and practice of principles of effective communication in groups. Exploration of dynamic variables and features unique to small group interaction. Public discussion formats are also explored. Prerequisite: COM 1103.

COM 3873 History and Contemporary Issues in Journalism – 3 hours (Spring)

This course is both a survey of the major landmarks of journalism history and an in-depth exploration of the issues and practices of contemporary journalism. This course will also consider how advances in communication technology and social media are reshaping the journalistic landscape.

COM 3973 Journalism Law and Ethics – 3 hours (Fall)

This course explores the legal and ethical aspects of the profession of journalism.

COM 4013 Communication and Leadership – 3 hours (Spring)

This course explores how we understand and become better leaders. It will integrate components of leadership and established leadership models from the communication field. The class will also focus on general leadership responsibilities and learning basic interview and job skills.

COM 4283 Communication and Social Media – 3 hours (Spring)

This course provides students the opportunity to learn to effectively use social media as an increasingly-vital component of organizational public identity. The course will focus upon how social media is changing. The culture of organizational communication and identity as well as teach students how to become effective practitioners of social media communication.

COM 4311 Communication Senior Capstone – 1 hour (Fall)

This course allows students to obtain a sense of perspective about the degree they are about to complete in communication. It serves two purposes: (a) It familiarizes prospective communication graduates with a number of the career options available in the field of communication, and (b) equips them to produce effective employment or graduate school portfolios.

COM 4413 Forensics – 3 hours (On demand)

Laboratory practice and techniques for coaching contest speaking events: oratory, extemporaneous speaking, interpretation and after-dinner speaking. Prerequisite: COM 2223.

COM 4433 Interviewing – 3 hours (Fall, odd years)

This course will survey the relevant theories and practices concerning interviewing as a job-seeking and non-job-seeking communication behavior. Students will learn to conduct and participate in both journalistic and professional interviews.

COM 495(1-4) Intensive Studies - 1-4 hours

COM 496(1-3) Practicum - 1-3 hours

COM 497(1-3) Symposium - 1-3 hours

COM 498(1-6) Internship - 1-6 hours (Fall, Spring, Summer)

COM 499(1-3) Independent Studies - 1-3 hours

Advanced studies of specific topics arranged through consultation with the division head.

Methods of Teaching Theatre

(See EDU 4502).

Methods of Teaching Speech in the Middle and Secondary Schools

(See EDU 4552).

Computer and Information Sciences

CIS 0103 Computer Literacy – 3 hours (Fall)

An introduction to computer hardware and software. Special emphasis is given to personal computer systems and the following common applications: word processors, presentation software, spreadsheets and databases. This course does not count toward the 128 hours required for graduation. Lab fee \$12.

CIS 1033 Foundations of Computer Science – 3 hours (Fall, Spring)

An introduction to key concepts in computer and how computation is related to all scientific fields. Topics include, but are not limited to, robotics, web design, software engineering, artificial intelligence, computer architecture, digital media storage, algorithm design and computability. Required for computer science majors. Lab fee \$12. Prerequisite: MAT 1243 or concurrent enrollment.

CIS 1103 Computer & Information Management – 3 hours (Fall, Spring, Winterfest, Summer)

This course presents the fundamental ideas related to information technology, reinforces proficiency in contemporary computer applications, and supports computational problem-solving processes. Emphasis

is given to effective use of spreadsheets and databases as tools for problem-based learning and analysis. Lab fee \$12.

CIS 113(0-1) Competition in Computing – 0-1 hour (Fall, Spring)

CIS credit will be granted for participation in computing and cybersecurity competitions. Students may earn up to four hours of cumulative credit for this course.

CIS 1141 Introduction to Linux and Scripting – 1 hour (Winterfest Odd Years)

This course introduces the Linux operating system including basic utilities, file management, account management, and the creation of utility script programs. Included are an overview of the login procedure, examination of the file and directory structure, and the most commonly used utilities. The course is lab based. Lab fee \$4. Prerequisite: CIS 1033.

CIS 1144 Computer Science I – 4 hours (Fall, Spring)

This course introduces the concepts of computer programming and problem solving and the associated ideas of algorithms and data structures. It is designed to provide the serious computer science student with basic skills and a solid foundation for further study. Includes an introduction to the Java programming language. Three lectures, one lab per week. Lab fee \$16. Prerequisite: MAT 1243 or concurrent enrollment.

CIS 1154 Computer Science II – 4 hours (Fall, Spring)

This course is a continuation of CIS 1144 with emphasis upon good programming methodology (software engineering). The data structures of linked lists, stacks, queues and trees are developed along with an introduction to file structures. Recursion, searching and sorting algorithms are analyzed for order as well as time and space efficiency. Parallel sorting and searching algorithms are introduced. Java is utilized for programming. Three lectures and one lab per week. Lab fee \$16. Prerequisite: CIS 1144.

CIS 1163 Personal Cybersecurity – 3 hours (Fall, Spring)

The course is a broad overview of the personal cybersecurity knowledge and skillset needed by every computer user. Topics will include cybersecurity vulnerabilities and threats, risk mitigation strategies, digital privacy, and cyberethics. Hands-on laboratory work will include creating backups of computer data, recovering lost files, and using security software to update and clean up the modern Windows computer. The course will not involve writing computer software. Lab fee \$25. Prerequisite: CIS 1033 or CIS 1103. Note: Online students need administrative access to a Windows personal computer (Windows 7 or later) which the student can install software on for the duration of the semester and an external hard drive for backing up their computer.

CIS 2003 Web Design – 3 hours (Spring, even years)

This course presents introductions to many of the basic concepts, design issues, web standards, and techniques related to designing, developing and deploying Web sites. Topics include web and animation tools, including editors, image manipulation tools, utilities, traffic analysis, internet security, and e-commerce issues. Lab fee \$12. Prerequisite: CIS 1154 with a grade of C or better.

CIS 2013 Networks – 3 hours (Fall, Spring)

This course examines the physical and conceptual structures underlying local and wide area networks. Topics include network topologies and architectures, network devices, common protocols and services, error and flow control mechanisms, and network monitoring and traffic analysis. Programming assignments will include multithreaded clients and servers. Lab fee \$12. Prerequisite: CIS 1033, CIS 1144, and MAT 1173.

CIS 2033 Information Assurance – 3 hours (Fall Even Years)

This course provides an overarching model for information assurance for businesses, government agencies, and other enterprises needing to establish a comprehensive security plan. Students will be guided through the components of security and the construction of an effective security policy. Topics include asset identification, human factors, compliance with regulations, personnel security, risk assessment, business continuity, and ethical considerations are covered, as well as computer and network security tools and methods. Prerequisite: CIS 1163.

CIS 2043 System Administration – 3 hours (Spring Even Years)

An introduction to system administration examining both the Linux and Windows operating systems running on physical hardware, as well as Type-1 hypervisors and hosted virtual machines. Topics will include installation, configuration, logging and auditing, backup and restoration, and account management. Lab fee \$12. Prerequisite: CIS 1033.

CIS 2213 Systems Analysis and Design – 3 hours (Fall, Spring)

Study of the phases a system project using current design tools and techniques. Includes an introduction and overview of several development methodologies with in depth study of one development methodology. Lab fee \$12. Prerequisite: CIS 1144.

CIS 2253 Web Engineering and Development – 3 hours (Fall)

A study of the development techniques, protocols, and approaches to engineering web-based software systems. Topics include HTML, CSS, XML, CGI, PHP, Javascript, Ajax, DOM, client/server computing and Ruby on Rails. Issues related to design, maintainability, metrics, security, and performance are addressed. Lab fee \$12. Prerequisite: CIS 1154 with a grade of C or better.

CIS 295(1-3) Special Topics – 1-3 hours (On demand)

Selected topics of special interest in the field of computer science. May be repeated. Lab fee when appropriate. Prerequisite: 6 hours in computer science.

CIS 3013 Digital Forensics Principles and Practices – 3 hours (Spring Odd Years)

This course provides the student a thorough background in the principles and practices employed in the field of digital forensics. The course provides students with a working foundation of the types of computer and electronic crimes being committed today, and identifies techniques used by offenders to compromise computer systems as well as vulnerabilities of computer and electronic systems. Practical applications of theory and academic study are included as coursework. Lab fee \$12. Prerequisite: CIS 1033 and CIS 1163.

CIS 3023 Network Security – 3 hours (Fall Odd Years)

A detailed examination of network security tools and techniques. The course will also include a detailed study of both encryption and steganography. Lab fee \$12. Prerequisites: CIS 1163 and CIS 2013.

CIS 3033 Secure Software – 3 hours (Spring Even Years)

A study of the most common security-related design and coding flaws in modern computer programs. Students will develop and refine secure design and programming techniques through correcting flaws in example programs and creation of their own secure programs. Students will perform in-class code reviews. Both Java and C will be utilized in programming assignments. Lab fee \$12. Prerequisites: CIS 1154 and CIS 1163.

CIS 3113 UI/UX Design – 3 hours (Fall, odd years)

A study of theories, practices and concepts in the design of user interfaces and user experience with computing applications and devices. Applied approaches are used to address issues in software development and usability testing. Lab fee \$12. Prerequisite: CIS 1154 with a grade of C or better.

CIS 3123 Survey of Data Science – 3 hours (Fall, Spring)

This course is a survey of concepts, principles, theories and issues related to the field of data science. Topics include data classification, clustering, warehousing and visualization. The course will also include a look at software applications for analyzing and interpreting data. Pre-requisites: general education computer literacy requirement (CIS 1103 or CIS 1033) and statistics (BUS 2023 or MAT 3343).

CIS 313(0-1) Competition in Computing – 0-1 hour (Fall, Spring)

CIS credit will be granted for participation in computing and cybersecurity competitions. Students may earn up to four hours of cumulative credit for this course. Prerequisite: 64 credit hours completed.

CIS/MAT 3221 Mentorship in Computing and Mathematics – 1 hour (Fall, Spring)

This course develops leaders in the returning students who mentor and promote achievement in first-year students. Prerequisite: 3.0 GPA and 24 hours completed at SBU.

CIS 3313 Advanced Systems Analysis and Design – 3 hours (Fall, even years)

This course presents an advanced and continued study of software analysis and design methodologies, techniques, and tools begun in CIS 2213. Course activities familiarize the student with Agile analysis and design activities and foster systematic and reflective decision-making in software engineering. As an advanced course, and recognizing the depth of instructional materials available on the web, the course will make use of tools and techniques which have not yet been codified in a textbook. Within the context of Agile methodologies, the student is asked to make and evaluate the quality of individual and team decisions related to requirements, estimates, plans, product, process, risk, personnel, stakeholder expectations, and global software development. A project-based approach is utilized. Lab fee \$12. Prerequisite CIS 2213.

CIS 3323 Database Management Systems Design – 3 hours (Fall, Spring)

A study of the concepts and structures necessary to design and implement a database system. Topics include data hashing and encryption, access controls, security models, and DBMS vulnerabilities. Lab fee \$12. Prerequisite: CIS 2213.

CIS 3333 Algorithms and Data Structures – 3 hours (Fall, Spring)

This course presents an advanced study of algorithms and data structures. Topics include precise iterative and recursive runtime and storage usage calculation and optimization, linear runtime sorting, graphs, Red-Black trees, AVL trees, B-trees, file structures and external sorting. Parallel sorting and searching algorithms are introduced. A non-object oriented language with manual memory management such as C is utilized for programming assignments. Prerequisite: CIS 1154 and MAT 1173.

CIS 3363 Mobile App Development – 3 hours (Spring, odd years)

This course introduces students to app development on mobile handheld devices (phones and tablets). Students will learn the fundamentals of the platforms, SDKs, and the development environments. Throughout this course student will develop a number of mobile apps with increasing complexity. Each app will focus on a key mobile app component. Lab fee \$12. Prerequisite: CIS 1154 with a grade of C or better.

CIS/PHY 3413 Machine Organization – 3 hours (Fall, Spring)

A survey of the electronic and mechanical components of a computer, including processing units, memory and I/O devices. Also includes an introduction to assembly language programming. Lab fee \$12. Prerequisites: CIS 1154 and MAT 1173.

CIS 3423 Programming Languages – 3 hours (Spring Odd Years)

This course explores the principles of modern programming languages by learning to implement them. It examines fundamental linguistic features, especially control operators such as first-class functions, exceptions and continuations. Prerequisite: CIS 3333.

CIS 3433 Artificial Intelligence – 3 hours (Spring Even Years)

This course introduces the fundamental concepts of Artificial Intelligence (AI) and apply them to the design and implementation of intelligent agents that solve AI problems, including problems in search, games, machine learning, logic, and constraint satisfaction. Prerequisite: CIS 3333.

CIS 4123 Management Information Systems and E-Commerce —3 hours (Summer)

This course equips students with the knowledge and skill needed to effectively integrate (ERM, ERP) computer based information systems for planning and decision support and operational control throughout all functional areas of the organization. It also equips students to understand and interact with e-business systems and to keep up with rapidly changing technologies. Prerequisite: computer proficiency, Application and acceptance to the MBA program is necessary prior to enrolling in this course. Fee: \$150.

CIS 4423 Operating Systems – 3 hours (Spring)

Introduction to the design and architecture of operating systems. Topics will include hypervisors, virtualization, and secure operating system design principles of domain separation, process isolation, resource encapsulation, and least privilege. Lab fee \$12. Prerequisite: CIS 3413.

CIS/MAT 4433 Numerical Methods – 3 hours (Fall, even years)

A study of mathematical concepts in a computing context. Topics include numerical integration, systems of equations, root-finding, curve-fitting, and differential equations. Emphasis will be placed on computer-based solutions with implications for programming, algorithm complexity, data representation and approximation, and error measurement. Lab fee \$12. Prerequisite: CIS 1033 and MAT 2263.

CIS 4453 Systems Security – 3 hours (Fall Even Years)

A detailed study of the preemptive configuration / hardening and the subsequent active defense of a computer system. Workstations, servers, virtual machines, mobile devices, IOT, SCADA systems, industrial control systems, and peripheral devices will be discussed. Lab fee \$12. Prerequisite: CIS 1154, CIS 1163, and CIS 2043.

CIS 4462 Applied Software Engineering I – 2 hours (Fall)

A comprehensive software engineering project conducted by a team of students. Students are required to define, design and do the initial implementation of a practical, commercial quality software project. Lab fee \$8. Prerequisites: CIS 3323 and CIS 3333.

CIS 4463 Ethical Hacking – 3 hours (Spring Odd Years)

A hands-on study of ethical hacking and cryptanalysis. Legal and ethical limitations will be stressed. Lab fee \$12. Prerequisite: either CIS 3033 or both CIS 1163 and CIS 2043. *Note:* Students will be required to sign an ethical conduct agreement as a part of this course.

CIS 4472 Applied Software Engineering II – 2 hours (Spring)

A continuation of CIS 4462. Students are required to complete the project started in CIS 4462. Lab fee \$8. Prerequisite: CIS 4462.

CIS 495(1-3) Intensive Studies – 1-3 hours (On demand)

Selected topics of special interest in the computer science field. May be repeated. Lab fee when appropriate. Prerequisite: 18 hours in computer science.

CIS 498(1-3) Internship in Computing – 1-3 hours (Fall, Spring, Summer, Winterfest)

Academically planned and supervised work experience in areas of the student's major within professional computing or other organizations, approved by the faculty advisor and division head as an enhancement to the student's educational preparation at SBU. Weekly written reports will be required of the student and performance reports from the employer. A maximum of six semester hours of internships may be applied to the major. Prerequisites: 30 hours completed.

CIS 499(1-3) Independent Studies – 1-3 hours (On demand)

Independent study of some problem or area in the major not covered in the organized courses. The study is under the direction of a faculty member in whose field of specialization the problem or area lies. Prerequisites: 3.00 GPA in major field and 60 hours completed.

Methods of Teaching Computer Science

(See EDU 4213).

Criminal Justice

CRJ 2313 Introduction to Criminal Justice – 3 hours (Spring)

An analysis of the criminal justice system in the United States. An examination of the foundations and methods of law enforcement, the aspects and nature of criminal law and procedure, the process of justice within courts, and characteristics of punishment for crimes.

CRJ 2333 Judicial Process – 3 hours (Spring)

An overview of the major structures, processes, and participants that compose the American judicial system, emphasizing criminal judicial procedure including: prosecution, defense, judge and jury practices at the state and federal levels. Prerequisite: CRJ 2313.

CRJ 295(1-3) Special Topics – 1-3 hours (On demand)

A study of critical issues in criminal justice that are not covered in other course offerings. Areas of study will vary from year to year. Students may elect to repeat the course.

CRJ 3033 Serial Killers – 3 hours (On demand)

A topical study of the factors common to serial murders, emphasizing the distinctions between myth and fact, the psychological profiles of such murderers, and the impact of such crimes on victims and society.

CRJ 3313 Law Enforcement Organization and Administration – 3 hours (Fall)

An examination of the organization and administration of law enforcement agencies, with an emphasis on the structure and nature of those agencies, the role of managers and leaders within law enforcement, and the relationship of law enforcement to community and political structures. Prerequisite: CRJ 2313.

CRJ 3373 Juvenile Delinquency – 3 hours (Spring)

An overview of the problem of juvenile delinquency and the societal response to delinquency. Causation, prevention, control, and treatment will be examined in the context of the unique place juveniles have within our criminal justice system. Prerequisite: CRJ 2313 or SOC 4033.

CRJ 4023 Professional Skills in Criminal Justice 3 hours (On Demand)

Students will practice needed skills for criminal justice professionals. This course includes three unique emphases: writing and communication for criminal justice, career preparation and exploration, and a currently relevant practical topic in the field. Students will learn and explore the physical and mental aspects of law enforcement, the judicial system, and corrections by investigating a singular rotating topic that is currently relevant within the criminal justice community. Prerequisite: CRJ 2003.

CRJ 4313 Corrections in America – 3 hours (Fall)

A systematic examination of the penal system within the context of the various theories of corrections. Areas of study include jails, probation, prisons, and parole, with an emphasis on how the daily operations of this system are influenced by the various theories of corrections. Prerequisite: CRJ 2313 or SOC 4033.

CRJ 4333 Criminal Law – 3 hours (Spring)

An overview of the laws that define crime, including examining the basic elements of crimes, general doctrines of criminal liability, and defenses to crime, with an exploration of the practical application of these concepts to law enforcement. Prerequisite: CRJ 2313.

CRJ 4373 Police Methods and Procedures – 3 hours (Fall)

An examination of policing in the United States covering the basics of police functions, the history and development of police organizations, the processes of police operations, legal parameters of police activities, and critical issues in law enforcement, including: search and seizure, laws of arrest, arrest procedures, criminal investigations, courtroom demeanor, and patrol techniques. Prerequisite: CRJ 2313.

CRJ 495(1-4) Intensive Studies – 1-4 hours (On demand)

A study of critical issues in the field of criminal justice that are not covered in other course offerings. Areas of study will vary from year to year. Students may elect to repeat the course. Prerequisite: 12 hours criminal justice or consent of instructor.

CRJ 498(3-6) Internship – 3-6 hours (Fall, Spring, Summer, Winterfest on demand only)

The internship experience is designed to give the upper level criminal justice major supervised field experience in an area related to criminal justice. Prerequisites: Junior or senior standing, completed at least one-half of the major, minimum GPA of 3.0 and recommendation from a behavioral sciences faculty. Graded Pass/Fail.

CRJ 499(1-3) Independent Studies – 1-3 hours (On demand)

Advanced studies of specific topics arranged by division head.

Economics

ECO 2003 Literacy in Free Enterprise (LIFE) Economics – 3 hours (Fall, Spring, Summer, Winterfest)

This General Education course will help the student develop an understanding of economic systems based on freedom. It will emphasize the importance of individual initiative and involvement in day-to-day community and business matters. Developing literacy about individual responsibility in personal and community decision making is a primary concern. *Note:* For non-business majors; does not meet the

Division of Business requirements. Not available to students who have taken a previous economics course. Prerequisite: 24 credit hours completed.

ECO 2023 Principles of Microeconomics – 3 hours (Fall, Spring)

A study of economic principles with emphasis upon microeconomics. Includes a study of economics of the firm, consumer demand theory and current problems. Prerequisite: 24 credit hours completed.

ECO 2033 Principles of Macroeconomics – 3 hours (Fall, Spring)

Study of the basic principles of macroeconomics designed to give a broad understanding of the economy. Emphasis upon aggregate problems and issues considered important to the nation. Prerequisite: 24 credit hours completed.

ECO 2043 (HON 2003) Honors Literacy in Free Enterprise (LIFE) Economics – 3 hours (Fall, odd years)

Honors LIFE Economics is the study of basic macro- and microeconomic concepts for non-business majors. This course will help the student develop an understanding of economic systems based on freedom. It will emphasize the importance of individual initiative and involvement in day-to-day community and business matters. Developing literacy about individual responsibility in personal and community decision-making is a primary concern. As an honors section, this class will explore the topic of free enterprise and economics through classroom discussion, enrichment activities and field trips. Prerequisite: Enrollment in the Dutile Honors Program or a minimum composite ACT 26, SAT of 1230, or a CLT score of 81.

ECO 295(1-4) Special Topics in Economics – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

ECO 3023 Money and Banking – 3 hours (Fall)

Study of history and present characteristics of money and banking structure in the United States. Emphasis upon monetary policy as it affects economic activity. Prerequisites: ECO 2023 and ECO 2033.

ECO 3043 Managerial Economics – 3 hours (Spring)

Combines the basic tools used by economists with techniques common in other business disciplines. This course deals with how decisions are made in order to achieve an organization's goals. It emphasizes use of quantitative techniques to solve production, marketing, management and financing problems. Prerequisites: ECO 2023 and MGT 3013.

ECO 3053 International Economics/Finance – 3 hours (Fall, even years)

A study of theory and policy related to international capital flows, exchange rates, and financial management. International economic institutions and policies are analyzed. Prerequisites: ECO 2023 and ECO 2033.

ECO 3063 Capital and Credit Markets – 3 hours (On demand)

The principles involved in the market structure of interest rates along with the source and uses of funds in the financial markets. Prerequisite: ECO 3023.

ECO 4023 Special Topics in Economics/Finance – 3 hours (Winterfest)

A study and discussion of the theory, recent history and current problems of economics and finance issues. Prerequisite: 60 credit hours completed.

ECO/FIN 4173 History of Finance and Economic Thought – 3 hours (Winterfest even years)

An introduction of the different economic schools of thought as well as recent economic developments. This course will also provide an introduction of the development of major topics in the field of finance. Prerequisites: ECO 2023, ECO 2033, and FIN 3053.

ECO 495(1-4) Intensive Studies in Economics – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

ECO 499(1-3) Independent Study in Economics – 1-3 hours (On demand)

Independent study of a topic not covered in the regular curriculum under the direction of a faculty member in whose field of specialization the area lies. Prerequisites: 3.00 GPA in major field and 60 credit hours completed.

Education

Note: Only professional education courses transferred from junior colleges and senior colleges having state-approved teacher education programs can be used to meet certification requirements. Students must earn a grade of “C” or better in all EDU courses. EDU 2113 Educational Psychology – 3 hours (Fall, Spring)

Study of social and behavioral theory, including the nature of educational psychology, measurement, personality, the classroom as a social system, learning and instruction.

EDU 2121 Field Experience Level 1: Elementary School, Grades 1-6 – 1 hour (Fall, Winterfest, Spring)

This field experience consists of forty-five clock hours of supervised practical experience in the classroom at the elementary level (grades 1-6). Teacher candidates must complete the teacher education file, gain permission from the Coordinator of Clinical Experiences, and pre-enroll. Prerequisites: EDU 2113 or 2313 (or concurrent enrollment in either). Course fee \$15.

EDU 2131 Field Experience Level 1: Middle/Jr. High – 1 hour (Fall, Winterfest, Spring)

This field experience consists of forty-five clock hours of supervised practical experience in the classroom at the middle/junior high level (grades 5-9). Teacher candidates must complete the teacher education file, gain permission from the Coordinator of Clinical Experiences, and pre-enroll. Prerequisites: EDU 2113 or 2313 (or concurrent enrollment in either). Course fee \$15.

EDU 2141 Field Experience Level 1: Secondary 9-12 or K-12 School – 1 hour (Fall, Winterfest, Spring)

This field experience consists of forty-five clock hours of supervised practical experience in the classroom at the secondary (grades 9-12) or K12 levels. Teacher candidates must complete the teacher education file, gain permission from the Coordinator of Clinical Experiences, and pre-enroll. Prerequisites: EDU 2113 or 2313 (or concurrent enrollment in either). Course fee \$15.

EDU 2232 Introduction to Early Childhood Education – 2 hours (Spring)

This course is designed to provide an introduction to the study of early childhood education, birth through eight years of age (grade 3). It includes a historical perspective, goals of early childhood education, the role of play in early childhood development, developmentally appropriate programs and curriculum models. Corequisite: EDU 2381 or EDU 2391.

EDU 2243 Health, Safety and Nutrition for the Young Child – 3 hours (Spring)

Provides information about current concepts in the fields of health, safety and nutrition and their relationship to the young child; includes application of principles of health, safety and nutrition for young children. Prerequisites: EDU 2113 or EDU 2313 (or concurrent enrollment in either).

EDU 2283 Methods of Teaching Number Theory for Elementary and Middle School Teachers – 3 hours (Fall)

This course includes the use of sets and set notation to describe and define number properties and operations, an axiomatic development of the system of whole numbers through the use of logic, the development of algorithms and models for teaching addition, subtraction, multiplication, and division of whole numbers, integers, and rational numbers (fractions, decimals, and percentages) as well as developing methods for teaching proportional reasoning. Prerequisite: 2.50 GPA.

EDU 2313 Foundations of Education – 3 hours (Fall, Spring)

The course presents major issues of schooling and education basic to professional preparation and an introduction to the teacher education program at Southwest Baptist University. Areas included are governance, finance, legal and ethical aspects of teaching, societal issues, cultural diversity, preparation for working with English language learners, and current topics in the field.

EDU 2332 Teaching the Young Child – 2 hours (Fall)

This course provides a continuation of the study of early childhood education, birth through eight years of age (grade 3). It includes a study of how to establish and maintain a safe, healthy learning environment and how to set up a well-run, purposeful, developmentally appropriate program that is responsive to participant needs. Additionally, there is a focus on how to advance the physical, intellectual, social and emotional needs of young children with an emphasis on the application of brain research in the preschool and kindergarten classroom. Corequisite: EDU 2381 or EDU 2391.

EDU 2343 Emergent Literacy – 3 hours (Fall, Spring)

This course develops an understanding of communication arts instruction with a particular focus on emergent language and literacy development. It is designed as a foundational course to additional reading methods courses and provides an understanding of how young children learn oral and written language, of the learning environment necessary for this learning to develop naturally, and the cultural and societal influences upon literacy development. Prerequisites: EDU 2113 or 2313 (or concurrent enrollment in either). Lamination fee \$10.

EDU 2353 Children's Literature – 3 hours (Fall, Spring)

This course presents an overview of the various genres of children's literature with demonstrations of teaching and integrating literature in the early childhood through middle school classrooms. Prerequisites: EDU 2113 or 2313 (or concurrent enrollment in either). Lamination fee \$10.

EDU 2381 Early Childhood Practicum I – 1 hour (Fall, Spring)

Provides 30 clock hours of experience at the early childhood level (birth through grade 3). Teacher candidates will experience a variety of early childhood facilities and apply developmentally appropriate practices for early childhood. Course fee \$15. Corequisite: EDU 2232 or EDU 2332.

EDU 2391 Early Childhood Practicum II – 1 hour (Fall, Spring)

Provides 30 clock hours of experience at the early childhood level (birth through grade 3). Teacher candidates will experience an early childhood setting and apply developmentally appropriate practices for young children. Course fee \$15. Corequisite: EDU 2232 or EDU 2332.

EDU 2483 School, Home, and Community Collaboration – 3 hours (Fall)

This course focuses on the history, current trends, and issues of family and community involvement in the schools. Materials, techniques, and resources for the improvement of home, school, and community partnerships and communication will be included. This course will prepare future educators to collaborate with other school professionals and families and take advantage of professional learning opportunities to benefit student learning and well-being. The importance of differentiated instruction and working with English language learners as they relate to student learning and collaboration will be addressed. Prerequisites: 2.50 GPA.

EDU 2823 Technology for Educators —3 hours (Fall, Spring)

This course focuses on developing teachers who are able to apply critical thinking and problem solving skills to utilize technology in their personal and professional lives. These skills include effective use of media to maximize student learning and collaborate with colleagues, administrators, parents, and the community. Students will explore and use a wide variety of media and digital tools utilized in teaching and evaluating student learning. Prerequisites: EDU 2113, 2313.. Course fee \$20.

EDU 295(1-3) Special Topics in Education – 1-3 hours (On demand)

An intensified approach to selected education topics or subject matter not regularly offered by the division.

Enrollment in upper level education courses by all students seeking State Teacher Certification is limited to those students who have a GPA of 3.0 in content area coursework, a GPA of 3.0 in professional education coursework, passed all state required assessments, completed their teacher education file, and been approved by faculty in the Division of Education and, in the case of students seeking K-12 or 9-12 certification, the approval of faculty in the respective division.

EDU 3003 Teaching Social Sciences in Early Childhood and Elementary Schools – 3 hours (Fall)

This course is designed for interactive, integrated learning of methods, techniques, and skills for engaging early childhood and elementary students in social studies concepts. This course will focus on pedagogy, multiculturalism, cultural diversity, English language learners, utilizing social studies trade books, differentiated instruction, and integrating the arts. Corequisite: EDU 3311 or 3321. Prerequisites: EDU 2121, 2343, 2353, 3.0 GPA in EDU courses.

EDU 3013 Analyzing and Amending Reading Problems – 3 hours (Fall, Spring)

In this course, students will learn about instructional techniques, reading assessments, diagnostic evaluations, and learning materials specifically designed to detect and correct reading difficulties. Students will administer and interpret a variety of reading assessments in order to diagnose students' difficulties and plan remediation lessons and activities. Students will practice test administration and diagnosis with students who are struggling with literacy development, demonstrating the ethics of testing procedures and reporting. Prerequisites: EDU 2113, 2313, (2131 or 2141), 3.0 GPA in EDU courses.

EDU 3043 Learner Development and the Classroom – 3 hours (Fall, Spring)

This course is concerned with the psychological development of children from birth through adolescence. The course will focus primarily on the cognitive, physical, social, personal and moral development of children and adolescents and the impact of these developmental areas on learning and behavior in the school classroom. Prerequisites: EDU 2113, 2313.

EDU 3114 Teaching Literacy in Early Childhood and Elementary Education I – 4 hours (Spring)

Teacher candidates will explore and implement teaching strategies to facilitate developmental and functional literacy in today's early childhood and elementary classrooms. Specific topics include: the reading and writing process, early literacy, phonics, phonemic awareness, handwriting, and literacy programs. In addition, the broad topics of differentiated instruction, English language learners, and assessment will be emphasized. Corequisite: EDU 331I or 332I. Prerequisites: EDU 212I, 2343, 2353. Lamination fee \$10.

EDU 3124 Teaching Literacy in Early Childhood and Elementary Education II – 4 hours (Spring)

Teacher candidates will explore and implement teaching strategies to facilitate developmental and functional literacy in today's early childhood and elementary classrooms. Specific topics include: vocabulary, fluency, spelling, grammar, comprehension (reader and text factors), multiple intelligences, cooperative learning, and listening/speaking. In addition, the broad topics of differentiated instruction, English language learners, and assessment will be emphasized. Corequisite: EDU 331I or 332I. Prerequisites: EDU 212I, 2343, 2353.

EDU 3143 Integrating Art, Music and Movement into the Early Childhood and Elementary School – 3 hours (Fall)

This course is designed to enable the student to integrate literature, art, music and physical education/movement into the early childhood and elementary classroom. Corequisite: EDU 331I or 332I. Prerequisites: EDU 212I, 2343, 2353.

EDU 3163 Teaching Integrated Math in Early Childhood and Elementary Education – 3 hours (Fall)

Analyzes methods of teaching mathematics in early childhood and elementary classrooms and integrating mathematics in other content areas in ways that are developmentally appropriate and are reflective of the NCTM standards. Methodology includes developing investigative lesson plans, using technology and learning centers in the math classroom, evaluating mathematics textbooks, formulating performance goals and objectives, and assessing the learning of mathematics. Corequisite: EDU 331I or 332I. Prerequisites: EDU 212I, 2343, 2353, 6 hours of math.

EDU 3183 Teaching Integrated Science in Early Childhood and Elementary Education – 3 hours (Spring)

Analyzes methods of teaching science in the early childhood and elementary schools using process inquiry skills, integrating science with other content areas, and teaching science in ways that are developmentally appropriate and are reflective of the National Science Education Standards and the Missouri Learning Standards. Corequisite: EDU 331I or 332I. Prerequisites: EDU 212I, 2343, 2353, a life science course (BIO 1003, BIO 100I or BIO 1954), a physical science course (PHS 1003/PHS 100I, PHS 1113/PHS 111I, CHE 1003/CHE 100I, CHE 1103/CHE 110I, CHE 1114/CHE 111I, PHS 2005, PHS 2313/PHS 231I, PHY 1114, PHY 111I, or PHY 2214/PHY 221I).

EDU 3212 Screening, Diagnosis and Prescription in Early Childhood Education – 2 hours (On demand)

A study of methods, procedures and instruments used in early childhood for screening and diagnosing individual children in order to prescribe specific learning activities. Prerequisites: EDU 2003, 2113, 2313, 2332, 2343, 2381, 2391. Course fee \$10.

EDU 3213 Evaluation of Abilities and Achievement – 3 hours (On demand)

This course provides a study of methods, procedures, and instruments used in K-12 classrooms for screening and diagnosing children in order to address their individual learning needs. Prerequisites: EDU 2113, 2313, (2121, 2131, 2141, or 2391).

EDU/ENG 3303 American Literature for Young Adults – 3 hours (Fall)

The study of young adult and ethnic American literature and of methods for teaching this literature in the middle and secondary school classrooms. Designed for those seeking teacher certification. Prerequisites: EDU 2113, 2313, (2131 or 2141), and 3.0 GPA in EDU courses.

EDU 3311 Field Experience Level 2 in Lower Elementary, Grades 1-3 – 1 hour (Fall, Spring)

Minimum of 75 clock hours of supervised practical experience in the classroom at the lower elementary level taken concurrently with methods courses. Teacher candidates must gain permission from the Coordinator of Clinical Experiences and pre-enroll. Corequisite: (EDU 3114/5114 or 3124/5124), (3143/5143 or 3823/5853), (3003/6003 or 3503/6513), and (3163/6023 or 3183/6053). Prerequisites: EDU 2121.

EDU 3321 Field Experience 2 in Upper Elementary, Grades 4-6 – 1 hour (Fall, Spring)

Minimum of 75 clock hours of supervised practical experience in the classroom at the upper elementary level taken concurrently with methods courses. Teacher candidates must gain permission from the Coordinator of Clinical Experiences and pre-enroll. Corequisite: EDU (3114/5114 or 3124/5124), (3143/5143 or 3823/5853), (3003/6003 or 3503/6513), and (3163/6023 or 3183/6053). Prerequisites: EDU 2121.

EDU 3331 Field Experience Level 2 in Middle/Jr. High School– 1 hour (Spring)

Minimum of forty-five clock hours of supervised practical experience in the classroom at the middle/junior high level. Teacher candidates must gain permission from the Coordinator of Clinical Experiences and pre-enroll. Corequisite: EDU 4493/5493. Prerequisites: EDU 2131, 3.0 GPA in EDU courses, and 3.0 GPA in content area courses.

EDU 3333 Principles and Methods of Secondary Instruction – (Fall, Spring)

This course will emphasize examining and implementing teaching methods, developing critical thinking and problem solving skills, analyzing learners and the learning process, refining communication skills, and constructing curriculum. EDU 3333 must be taken at SBU. Corequisite: EDU 3341. Prerequisites: EDU 2113, 2141, 2313, 3.0 GPA in EDU courses, and 3.0 GPA in content area courses.

EDU 3341 Field Experience Level 2 in Secondary School – 1 hour (Fall, Spring)

Minimum of forty-five clock hours of supervised practical experience in the classroom at the secondary school level. Teacher candidates must gain permission from the Coordinator of Clinical Experiences and pre-enroll. Corequisite: EDU 3333/5333. Prerequisites: EDU 2141.

EDU 3503 Curriculum Planning and Assessment – 3 hours (Spring)

This course examines curriculum and the dynamics of planning and implementing daily, unit, and year-long instruction based on state standards utilizing a variety of frequent effective assessments. Students will explore using formative and summative assessments in student learning, analyzing grading practices and issues, interpreting standardized tests and statewide assessments, proctoring individual skill or academic assessments, and investigating the classroom teacher's role in district accreditation through the Missouri School Improvement Program (MSIP). Corequisite: EDU 3311 or 3321. Prerequisites: EDU 2121, 2343, 2353, and 3.0 GPA in EDU courses.

EDU 3613 Content Area Literacy – 3 hours (Fall, Spring)

This course is designed to prepare middle school/junior high and/or secondary teachers to use functional reading and writing skills, strategies and techniques to enhance the reading and writing skills of students for use in learning in various content areas. Prerequisites: EDU 2113, 2313, (2131 or 2141), 3.0 GPA in EDU courses, and 3.0 GPA in content area courses.

EDU/MUS 3813 Elementary Music Education – 3 hours (Spring)

Study of administrative teaching techniques and survey of materials for teaching vocal and instrumental music in early childhood and elementary grades. Examination of musical concepts and skills appropriate at each age or learning level. Training in use of piano, recorder, autoharp and fretted instruments. Prerequisites: EDU 2113, 2141, 2313, MUS 1621 and 1623 (music majors and minors only), 3.0 GPA in EDU courses.

EDU 3823 Behavior and Classroom Management in Early Childhood and Elementary Education – 3 hours (Spring)

The content of this class is an exploration of the dynamics of behavior and management that make a community of learners in a classroom. Emotional, social, and physical aspects will be considered in making an environment conducive to teaching and learning. Management of student behavior, discipline approaches, cultural diversity, the presence of English language learners, and the total makeup of the classroom will be studied, discussed, researched, and observed in early childhood and elementary class settings. Corequisite: EDU 3311 or 3321. Prerequisites: EDU 2121, 2343, 2353, and 3.0 GPA in EDU courses.

EDU 3833 Behavior and Classroom Management: Secondary – 3 hours (Fall, Spring)

An examination of current and past principles of classroom management will be examined in light of biblical, theoretical, and philosophical assumptions concerning humankind. Modern theories of discipline will be evaluated as to effectiveness and will be contrasted with historical views of schooling and education. It is intended that teacher candidates will be challenged to contemplate methods of instructing and modeling behavior (proactively) instead of simply responding (reactively) to inappropriate student actions. Wisdom and virtue, the cornerstones of any education, will be discussed as goals versus simply controlling and conforming behavior. Prerequisites: EDU 2113, (2131 or 2141), 2313.

EDU 398(1-3) BearcatsTeach Internship (Fall, Spring)

This course is a paid internship consisting of observations, individual conferences, and supervised substitute teaching in an elementary, middle, and/or secondary school. Teacher candidates must meet all prerequisites and be accepted into the BearcatsTeach Program in order to take this course. All transportation arrangements and expenses are the responsibility of the teacher candidate. Teacher candidates interested in participating in this internship will be required to apply and interview with the SBU Division of Education and the assigned school district. Prerequisites: EDU (2121, 2131, or 2141).

EDU 4023 Methods of Teaching Social Science in the Middle and Secondary Schools – 3 hours (Spring)

Exploration of basic concepts within each of the social sciences and possible teaching methods. Prerequisites: EDU 2113, (2131 or 2141), 2313.

EDU 4213 Methods of Teaching Computer Science – 3 hours (On Demand)

This course for prospective secondary STEM teachers explores computer science as a discipline that encourages inquiry, creativity, and collaboration. Given that the nature of computing is investigative, the computer science activities will be hands-on to gain insights about teaching and learning computing concepts in classroom settings. Students will examine a variety of computing tools, virtual environments,

and other instructional resources that support learning across STEM disciplines. Students will learn that pedagogical methods in computer science require intellectual rigor in order to develop lessons that are relevant to secondary students and pertinent to our culturally diverse world today.

EDU 4473 Psychology of the Middle School Student – 3 hours (Fall)

This course offers a broad overview of the history of young adolescent psychology, its advocates, researchers and its implications for middle level educational practices. Among the practices addressed will be the utilization of differentiated instruction to promote differentiated learning in young adolescents. Prerequisites: EDU 2113, 2131, 2313.

EDU 4493 Middle School Curriculum – 3 hours (Spring)

This course offers an in-depth study of curriculum development and instructional strategies targeting the young adolescent. Teacher candidates will develop pedagogical practices that meet the vast physical, emotional, social, intellectual and affective developmental needs of young adolescents. The course will emphasize differentiated instruction, responses to cultural diversity, meeting the instructional needs of English language learners as well as consultation and collaboration with colleagues, parents and the community. Corequisite: EDU 3331. Prerequisites: EDU 2131, 2463.

EDU 4502 Methods of Teaching Theatre – 2 hours (Spring)

An introduction to methods of teaching theatre in the secondary school. Topics include curriculum development; teaching strategies; and assessment. Additionally, this course addresses strategies for organizing and implementing a production schedule. Prerequisites: EDU 2113, 2141, 2313.

EDU 4512 Methods of Teaching Art, K-12 – 2 hours (Fall)

Understanding motivation, materials and techniques in school art programs. Prerequisites: EDU 2113, 2141, 2313.

EDU 4513 Methods of Teaching Mathematics in the Middle and Secondary Schools – 3 hours (Spring)

Theory and application of current practices in teaching mathematics in middle and secondary schools. Prerequisites: EDU 2113, (2131 or 2141), 2313.

EDU 4522 Methods of Teaching Science in the Middle and Secondary Schools – 2 hours (Fall)

Course will provide practical methods for the teacher candidate to use for the instruction of middle and secondary school students in such areas as laboratory safety, investigation, and questioning skills. Course activities will include inquiry teaching, use of demonstrations in teaching, budgeting and supply ordering, science fairs and projects, and the use of the computer in the science classroom. Prerequisites: EDU 2113, (2131 or 2141), 2313.

EDU/ENG 4543 Methods of Teaching Writing in the Secondary School – 3 hours (Spring, odd years)

Theory and application in the teaching of writing and grammar in secondary schools with emphasis on the writing process. A requirement for secondary English majors. Prerequisites: EDU 2113, (2131 or 2141), 2313.

EDU 4552 Methods of Teaching Speech in the Middle and Secondary Schools – 2 hours (Fall)

Emphasis on principles, techniques and problems that are unique in teaching speech. Unit and course plans are developed for all areas of speech. Attention is given to directing forensic activities. Prerequisites: EDU 2113, (2131 or 2141), 2313.

EDU 4563 Methods of Teaching Foreign Language – 3 hour (On sufficient demand)

Study of methods of teaching modern languages in public school. Prerequisites: EDU 2113, 2141, 2313.

EDU/MUS 4573 Methods of Teaching Vocal Music in the Middle and Secondary Schools – 3 hours (Fall, odd years)

Study of philosophy of music education, administrative and teaching techniques and materials for teaching vocal music in the middle and secondary schools. Music majors and minors only. Prerequisites: EDU 2113, 2141, 2313, MUS 1621, MUS 1623.

EDU/MUS 4582 Methods of Teaching Instrumental Music in the Middle and Secondary Schools – 2 hours (Fall, even years)

Study of philosophy of music education, administrative and teaching techniques and materials for teaching instrumental music in middle and secondary schools. Music majors and minors only. Prerequisites: EDU 2113, 2141, 2313, MUS 1621, MUS 1623.

EDU 4593 Spiritual Issues in Public Schools – 3 hours (Spring)

This course is designed to help teachers plan curriculum in ways that stay true to one's faith and helps teach Christian values in a multicultural community. Students will review which laws determine the religious rights of students and teachers in public schools and how to apply these laws to real situations in the classroom.

EDU 4623 Teaching Diverse Learners – 3 hours (Fall, Spring)

Mentally, emotionally, and physically exceptional children are studied. Methods of teaching children who are gifted, mentally-disabled, visual and hearing-impaired, learning-disabled, and physically-handicapped are included. Additional focus will be placed on teaching children with communication and behavior issues. The use of differentiated instruction to promote differentiated learning will be addressed. Corequisites: EDU 4929, 4939, 4949, or 4959.

EDU 4691 Student Teaching Seminar – 1 hour (Fall, Spring)

This seminar for student teachers will center on refining students' skills as reflective practitioners through a variety of experiences concerning contemporary problems and issues in the field of education, including legal and ethical aspects of teaching. Corequisites: EDU 4929, 4939, 4949, or 4959.

EDU 4832 Assessment and Evaluation of Learners – 2 hours (Fall, Spring)

This course is the study of the principles of assessment, including organization of the classroom as a social setting, planning and teaching based on sound objectives, formal assessment of student learning, grading students, and interpreting standardized tests and statewide assessments. Corequisites: EDU 4939, 4949, or 4959.

EDU 4929 Student Teaching in the Elementary School – 10 hours (Fall, Spring)

This course for elementary education majors consists of one semester of full-time observing, assisting, and teaching in an assigned classroom in public schools. Students must be unconditionally admitted to the teacher education program and have completed all professional education requirements. Corequisites: EDU 4623 and 4691. Prerequisites: EDU 2121, 3311, and 3321. Student Teaching fee \$350 (an additional fee will be assessed to teacher candidates allowed to student teach beyond the 50 mile radius).

EDU 4939 Student Teaching in the Middle School – 10 hours (Fall, Spring)

This course for middle school education majors consists of one semester of full-time observing, assisting, and teaching in an assigned classroom in public schools. Students must be unconditionally admitted to the teacher education program and have completed all professional education requirements. Corequisites: EDU 4623, 4691, and 4832. Prerequisites: EDU 2131 and 3331. Student Teaching fee \$350

(an additional fee will be assessed to teacher candidates allowed to student teach beyond the 50 mile radius).

EDU 4949 Student Teaching in the Secondary School – 10 hours (Fall, Spring)

This course for those seeking secondary certification (grades 9-12) consists of one semester of full-time observing, assisting, and teaching in an assigned classroom in public schools. Students must be unconditionally admitted to the teacher education program and have completed all professional education requirements. Corequisites: EDU 4623, 4961, and 4832. Prerequisites: EDU 2141 and 3341. Student Teaching fee \$350 (an additional fee will be assessed to teacher candidates allowed to student teach beyond the 50 mile radius).

EDU 4959 Student Teaching in the K-12 School System – 10 hours (Fall, Spring)

This course for those seeking K-12 certification in art, music, Spanish, or physical education consists of one semester of full-time observing, assisting, and teaching in an assigned classrooms on at least two different levels (elementary, middle school/junior high, and/or high school) in public schools. Students must be unconditionally admitted to the teacher education program and have completed all professional education requirements. Corequisites: EDU 4623, 4691, and 4832. Prerequisites: EDU 2141 and 3341. Student Teaching fee \$350 (an additional fee will be assessed to teacher candidates allowed to student teach beyond the 50 mile radius).

EDU 495(1-3) Intensive Studies in Education – 1-3 hours (On demand)

An intensified approach to selected education topics or subject matter not regularly offered by the division. Prerequisites: EDU 2113, (2131 or 2141), 2313, (3331 or 3341).

EDU 499(1-3) Independent Studies (Elementary Majors) – 1-3 hours (On demand)

Advanced studies of specific topics arranged by division head. Prerequisites: EDU 2003, 2113, 2121, 2313, 3311, 3321.

English

ENG 0103 English Skills – 3 hours (Fall, Spring)

Introduction to and practice in formal English with emphasis upon basic sentence and paragraph skills. This course does not count toward the 128 hours required for graduation. Students placed in this course due to their ACT/SAT scores must make at least a C grade in ENG 0103 to take ENG 1113. However, those placed in ENG 0103 on the basis of the ACT/SAT scores may bypass ENG 0103 and take ENG 1113 on the evidence of writing skills demonstrated on a divisional exam.

ENG 1113 English Composition I – 3 hours (Fall, Spring)

Expository writing based on a study of essays. In addition to the writing of essays, a student will write a research paper. Prerequisite: An English score of at least 18 on the ACT examination in English, or a Verbal Reasoning + Grammar/Writing CLT sub score of 42 or higher. or at least a C grade in English 0103.

ENG/HON 1123 Honors Composition – 3 hours (Fall, On demand in Spring)

An honors-level course in expository writing based on a study of imaginative literature. The course fosters the development of writing and research skills. Fee \$2. Prerequisite: An English score of at least 28 on the ACT examination, or a Verbal Reasoning + Grammar/Writing CLT sub score of 59 or higher. A grade of C or above in this course and the payment of a transcription fee permit the student to receive credit for ENG 1113 also. Honors section requires enrollment in the Dutile Honors Program.

ENG 2213 English Composition II – 3 hours (Fall, Spring)

Expository writing based on a study of imaginative literature. The course fosters the development of writing and research skills. Fee \$2. Prerequisite: ENG III3.

ENG 2313/3413 Survey of World Literature – 3 hours (Fall)

Masterpieces of world literature, from antiquity to the twentieth century. Prerequisite: Completion of the general education requirement in composition.

ENG 295(1-4) Special Topics – 1-4 hours

The study of selected language and literary topics. Prerequisite: Completion of the general education requirement in composition.

ENG/WRT 3013 Writing Poetry – 3 hours (Spring, odd years)

A workshop in the writing of original poetry, based on a study of poetic characteristics and genres. Prerequisite: Completion of the general education requirement in composition.

ENG/WRT 3023 Writing Creative Nonfiction – 3 hours (Fall, even years)

A workshop in creative nonfiction writing utilizing readings from varying genres and peer/instructor feedback. Prerequisite: Completion of the general education requirement in composition.

ENG/WRT 3033 Writing Creatively for Young Adults – 3 hours (Spring, even years)

A workshop in learning to write creatively for young adults in a variety of genres. Prerequisite: Completion of the general education requirement in composition.

ENG 3233 Medieval and Renaissance English Literature – 3 hours (Fall, even years)

Literature of England from Beowulf to Shakespeare. Prerequisite: Completion of the general education requirement in composition.

ENG 3243 Seventeenth and Eighteenth-Century English Literature – 3 hours (Spring, even years)

Literature of England from Donne to Boswell. Prerequisite: Completion of the general education requirement in composition.

ENG/EDU 3303 American Literature for Young Adults – 3 hours (Fall)

The study of young adult and ethnic American literature and of methods for teaching this literature in the middle and secondary school classroom. Designed for those seeking teacher certification. Prerequisite: Completion of the general education requirement in composition, a 3.0 GPA in EDU coursework with no EDU course grade below a C and a 3.0 GPA in the student's required certification area content coursework.

ENG 3313 American Literature I – 3 hours (Fall)

Literature of America from Colonial Period to Romantic Period. Prerequisite: Completion of the general education requirement in composition.

ENG 3323 American Literature II – 3 hours (Spring, odd years)

Literature of America from Age of Realism to present. Prerequisite: Completion of the general education requirement in composition.

ENG/WRT 3353 Advanced Composition – 3 hours (Spring, even years)

Advanced expository writing, based on a study of contemporary prose. Prerequisite: Completion of the general education requirement in composition.

ENG 3363 History of the English Language – 3 hours (Spring, even years)

The development of the English language from its beginning to the present. Prerequisite: Completion of the general education requirement in composition.

ENG 3373 Structure of the English Language – 3 hours (Fall)

Detailed study of current English sounds, grammar and usage. Prerequisite: Completion of the general education requirement in composition.

ENG 3383 Romantic and Victorian English Literature – 3 hours (Spring, odd years)

Literature of England from Blake to Hopkins. Prerequisite: Completion of the general education requirement in composition.

ENG/WRT 4003 Technical Writing – 3 hours (Fall, even years)

The application of rhetorical principles to the writing of investigative and descriptive reports on scientific and technological subjects. Prerequisite: Completion of the general education requirement in composition.

ENG/WRT 4013 Writing Short Fiction – 3 hours (Fall, odd years)

A workshop in short fiction writing utilizing readings from varying fiction genres and peer/instructor feedback. Prerequisite: Completion of the general education requirement in composition.

ENG 4023 Contemporary British Literature – 3 hours (Fall, odd years)

A focused study of the works of a specific author or genre of British literature ranging from the twentieth century to the present. Prerequisite: Completion of the general education requirement in composition.

ENG 4033 Focused Readings in American Literature – 3 hours (Spring, even years)

A focused study of the works of a specific author or genre of American literature. Prerequisite: Completion of the general education requirement in composition.

ENG/THR 4413 Shakespeare – 3 hours (Spring, odd years)

Tragedies, histories and comedies of Shakespeare. Prerequisite: Completion of the general education requirement in composition.

ENG/EDU 4543 Methods of Teaching Writing in the Secondary Schools – 3 hours (Spring, odd years)

Theory and application in the teaching of writing and grammar in secondary schools with emphasis on the writing process. A requirement for English majors pursuing secondary certification and middle school majors with a language arts concentration. Prerequisites: EDU 2113, 2313, completion of the general education requirement in composition. In order to enroll in EDU 4543 the student must have a 3.0 GPA in EDU coursework.

ENG 495(1-4) Intensive Studies – 1-4 hours (On demand)

The study of selected language and literary topics. Prerequisite: Completion of the general education requirement in composition.

ENG 4961 Writing Center Theory and Practicum – 1 hour (On Demand)

An introduction to the field of writing center theory and tutoring pedagogy. Prerequisites: Completion of the general education requirement in composition and instructor permission.

ENG 499(1-3) Independent Studies – 1-3 hours (On demand)

Advanced studies of specific topics. Prerequisite: Completion of the general education requirement in composition.

Exercise Science

ESC 1013 Introduction to Exercise Science – 3 hours (Spring)

A course designed to help students develop perspectives in the field of exercise science. Students will examine the different areas of study within the field, kinds of programs, qualifications needed to enter the field, career opportunities, and issues facing exercise science professionals.

ESC 3023 Sports Nutrition – 3 hours

Nutritional requirements of athletes nutritional bioenergetics, metabolism, ergogenic aids for sports performance and recovery. Prerequisites: BIO/KIN 2243, BIO 2204, BIO 3304.

ESC 3114. Orthopedic Evaluation: Above Diaphragm - 4 hours

Prepares the student to properly identify, examine and assess athletic injuries to the head, spine, upper extremity, and thorax. This course has a laboratory component with three lectures and one laboratory each week. Lab fee \$62.

ESC 3124. Orthopedic Evaluation: Below Diaphragm - 4 hours

Prepares the student to properly identify, examine and assess athletic injuries to the lumbar spine & lower extremity. This course has a laboratory component with three lectures and one laboratory each week. Lab fee \$62. Prerequisites: BIO 2204, BIO 3304.

ESC 3133. Pharmacology - 3 hours

Prepares the student to understand the physiology of pharmaceuticals, indications, contraindications and diverse side effects of common pharmaceuticals utilized within the athletic realm.

ESC 4013 Tactical Strength and Conditioning – 3 hours

A comprehensive evidenced-based course on the scope of practice as well as the theoretical and applied approaches of strength and conditioning for exercise professionals working with tactical athletes. Prerequisite: ESC 4013.

ESC 4033 Special Populations – 3 hours (Spring)

Focusing on the specific needs of people with a certain disease, condition, or stage of life, this course surveys in the areas of exceptionalities that occur within different special populations. It is designed to help the student identify and understand the uniqueness of the exceptional individual.

ESC 4034. Treatment and Rehabilitation - 4 hours

Prepares the student to select, implement and manage the most effective rehabilitative procedures for a given injury to restore lost function to the patient so that the individual may return to normal activities of daily living. This course has a laboratory component with three lectures and one laboratory each week. Lab fee \$62. Prerequisite: ESC 3114, ESC 3124.

ESC 4043 Exercise Science Practicum – 3 hours (Spring)

Credit given for hands-on experience gained through exercise prescription and training of selected volunteer clients. Prerequisite: 64 hours completed.

ESC 4053 Biomechanical Analysis – 3 hours (Fall)

A course to acquaint students with various evaluation methods in exercise science and exercise physiology. Practice is given to administering tests and interpreting results with appropriate statistical procedures. Prerequisite: 64 hours completed, BEH 3243 Elementary Statistics. Course fee \$50.

ESC 4223. Functional Movement - 3 hours

Prepares the student in the development of skills in assessment procedures and therapeutic intervention addressing functional movement, gait, posture and common pathologies that exist in human motion and function within the context of athletic performance. Prerequisite: ESC 3114, ESC 3124.

ESC 4833. Evidenced Based Practice - 3 hours

Prepares the student with the knowledge, skills and abilities necessary to make independent judgments about the validity, results, and application of clinical research and to implement evidence-based clinical practice in their careers. This course will focus on the concepts of evidence-based practice with emphasis on forming answerable clinical questions and effective literature search strategies. Prerequisite: BEH 3243, ESC 4035, ESC 3114, ESC 3124.

ESC 4986 Exercise Science Internship – 6 hours (Fall, Spring, Summer, Winterfest)

A full-time residency for on-the-job training under the supervision of an exercise science professional. Includes observation, supervision, planning, instruction, direct leadership and evaluation. Minimum requirement: 240 hours. Prerequisites: A minimum grade of “C” in all exercise science courses; a minimum overall GPA of 2.00 in all course work taken at SBU prior to application for internship and prior to internship itself; restricted to Exercise Science majors of senior standing; advanced application no later than September or February of preceding semester. Course fee \$100.

Finance

FIN 295(1-4) Special Topics in Finance – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

FIN 3003 Personal Financial Planning – 3 hours (Fall, Spring)

Topics to be studied include budgeting, banking, major consumer purchases (including lease vs. buy decisions), home ownership, all types of personal insurance (from liability to disability), investments, estate planning and taxes. Prerequisite: 24 credit hours completed.

FIN 3053 Business Finance – 3 hours (Fall, Spring)

Study of the principles of financing short-term and long-term capital needs of business firms in keeping with an objective of maximizing the firm's value to its shareholders, i.e., stock price. Special attention given to Capital Asset Pricing Model, the various capital budget theories and computer applications. Prerequisites: ACC 2043 and BUS 2023.

FIN 4023 Special Topics in Finance/Economics – 3 hours (On Demand)

A study discussion of the theory, recent history and current problems of economics and finance issues. Prerequisite: 60 credit hours completed.

FIN 4033 Introduction to Derivatives – 3 hours (Spring, odd years)

This course provides the student with a working knowledge of options, forwards, futures, and swap markets. The course provides the student with techniques that enable him or her to discuss, analyze, value, and use derivative securities to manage both financial and commodity price risk. Hedging with derivative securities is emphasized. Considerable attention is paid to the role of options and option pricing models in corporate finance. Prerequisites: FIN 3003 and FIN 3053. Course Fee: \$12.

FIN 4053 Investments – 3 hours (Spring, even years)

A study of the entire field of investments with major emphasis on security valuation theories, security markets, portfolio management and computer applications in the investment decision-making process. Course fee \$15. Prerequisites: FIN 3003 and FIN 3053.

FIN 4063 Commercial Banking – 3 hours (On demand)

An examination of the operation of commercial banks, trust companies, and other credit institutions. Special attention will be given to recent bank legislation, bank valuation, performance, strategic planning, asset-liability management, risk management, credit risk, money management services, and off-balance sheet risks. Trends such as consolidation, internationalization, and product diversification will also be addressed. At its core the class will use banks as the model but other financial service providers such as savings and loans and brokerage firms will be covered as well. Prerequisite: ACC 2043.

FIN 4073 Insurance – 3 hours (Fall, odd years)

An introduction to the use of insurance as a risk management tool. Specific attention will be given to the structure of the insurance market, current issues regarding regulation and reform of insurance, and the use of insurance by firms and individuals to appropriately manage risk. Prerequisite: FIN 3003.

FIN/ECO 4173 History of Finance and Economic Thought – 3 hours (Winterfest, even years)

An introduction of the different economic schools of thought as well as recent economic developments. This course will also provide an introduction of the development of major topics in the field of finance. Prerequisites: ECO 2023, ECO 2033, and FIN 3053.

FIN 495(1-4) Intensive Studies in Finance – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

FIN 499(1-3) Independent Study in Finance – 1-3 hours (On demand)

Independent study of some problem or area in the major not covered in the organized courses. The study is under the direction of a faculty member in whose field of specialization the problem or area lies. Prerequisites: 3.00 GPA in major field and 60 credit hours completed.

Fine Arts

FAR 1003 Introduction to Fine Arts – 3 hours (Spring)

A course designed to help the general education student to develop a basic understanding of music and art of various cultures and historical periods. Course fee \$30.

FAR/ART 1013 Introduction to Art – 3 hours (Spring)

An introduction to art from all historical periods to help the non-art major develop an understanding of the role of art in the life of man and the value of art to the individual. Required for art majors. Course fee \$30.

FAR 1023 Introduction to Music – 3 hours (Fall, Spring)

A course to help the non-music major develop a basic understanding of music from historical periods of the western world and gain exposure to music of various non-western cultures. Course fee \$30.

FAR/THR 1033 Introduction to Theatre – 3 hours (Fall)

A study of the history and literature of the theatre with introductory participation in the areas of acting and stagecraft. Emphasis on reading and attending plays.

French

FRE 1114 Elementary French I – 4 hours (On demand in Fall)

Pronunciation, conversation, reading, composition and basic grammar.

FRE 1124 Elementary French II – 4 hours (On demand in Spring)

Continuation of FRE 1114. Prerequisite: FRE 1114 or satisfactory placement scores or one year of high school French.

Geography

GEO 1103 Geography – 3 hours (Fall, Spring)

Basic survey introducing the various elements of geographical study. Course fee: \$2.

German

GER 1114 Elementary German I – 4 hours (On demand in Fall)

Pronunciation, conversation, reading, composition and basic grammar.

GER 1124 Elementary German II – 4 hours (On demand in Spring)

Continuation of GER 1114. Prerequisite: GER 1114 or satisfactory placement scores or one year of high school German.

Greek

GRE 2013 Elementary Greek I – 3 hours (Fall, odd years)

Study of the basic elements of New Testament Greek, stressing vocabulary, conjugation, declension, composition and translation. Prerequisites: BIB 1013/1213, 1023/1223.

GRE 2023 Elementary Greek II – 3 hours (Spring, even years)

Continuation of GRE 2014. Oral and written exercises continued; introduction to Greek New Testament through passages which are relatively uncomplicated. Prerequisite: GRE 2013.

GRE 3013 Intermediate Greek – 3 hours (Fall, even years)

Review of grammar principles. Stress on translation and interpretive significance of grammatical constructions in the Greek New Testament. Prerequisite: GRE 2023.

GRE 3023 Advanced Greek – 3 hours (Spring, odd years)

Extensive reading in the Greek New Testament with emphasis upon syntax and careful, accurate exegesis. Prerequisite: GRE 3013.

GRE 495(1-3) Intensive Studies in Greek – 1-3 hours

Exegetical studies in selected books or passages of the Greek New Testament. The course may be taken more than once. Prerequisite: GRE 3023.

Health Sciences

HSC/NUR 1013 Medical Terminology – 3 hours (On demand)

This course focuses on the basic principles of medical terminology and application to the day-to-day work of allied health personnel. This course is an elective for the nursing programs.

HSC 3010 New Student Orientation – 0 hours (Fall, Winterfest, Spring, Summer)

This is a no credit course that outlines the learning management system, technological systems, student resources, and institutional processes. This course is designed to familiarize students with the college's academic expectations, available student support services, and institutional processes during the first semester to promote student success in the nursing program. All students are required to register and participate in the orientation course.

HSC/NUR 3013 Organization and Delivery of Health Care – 3 hours (On demand)

This course provides an overview of health care delivery systems, examining such influencing forces as history, values and resources. Considers the role of reimbursement methods, technology, personnel and public policy in health care delivery. Explores the structures, processes, outcomes and challenges of the U.S. health care system.

HSC/NRS/NUR 3043 Health Care Missions – 3 hours (On demand)

This course is for health care students to plan, prepare, and experience health care delivery in an identified area of need. Mission trips must be an approved college/university mission trip with health care experiences.

HSC/NUR 3083 Clinical Genetics – 3 hours (On demand)

This course focuses on the fundamentals of genetics. The course is designed to give the student a basic understanding of genetic concepts so that this knowledge can be utilized to understand current and future genetic theories and therapeutics. ASN, BSHS, or BSN course elective.

HSC/NRS/NUR 3093 Survey of Human Anatomy and Physiology for Nursing and Health Sciences – 3 hours (Fall, Spring, Summer)

This course is designed as a refresher course for students who have outdated (>5 years) coursework in human anatomy and physiology. The course will be offered as an accelerated compendium of key concepts of human anatomy and physiology.

HSC 3113 Ethics in Health Care – 3 hours (On demand)

This course will provide students with foundational knowledge and skills using responsible professional behavior that will enable them to competently reflect upon, address and resolve the ethical and socio-cultural issues. Students will demonstrate a basic knowledge and skills in ethical theory and reasoning, professional ethics, and an interprofessional approach to health care decision-making.

HSC 3123 Informatics for Health Care Professionals- 3 hours (On demand)

This course provides an introduction to health informatics through an understanding of the science of how to use data and exploring the information and knowledge needed to improve human health and the delivery of health care.

HSC 3133 Legal & Contemporary Issues in Health Care- 3 hours (On demand)

This course introduces legal concepts and contemporary issues faced in healthcare. Explores the basic principles of the law and how they affect health care decisions. Examines the responsibilities of health care professionals in legal matters as well as contemporary topics involving the U.S health system.

HSC 3143 Intro to Health Care Concepts and Professionalism- 3 hours (On demand)

This course provides an introduction to health care. The roles and responsibility of the individuals working in the industry will be examined. Students will look at cultural and social influences that affect the organization and delivery of health care. The subject of professionalism will be introduced and the importance of it in the health care setting will be discussed as well as the professional organizations that assist in health care roles.

HSC/NRS/NUR 3453 Spirituality in Health Care – 3 hours (Fall, Winterfest, Spring, Summer)

This course explores personal Christian spiritual development, theory, and diverse models of spirituality emphasizing their impact on health care settings. Spiritual practices and the responsibilities and issues of

spiritual care are examined. Christian discipleship and a Christian theology are discussed as they apply to professional practice in a secular environment.

HSC/NRS/NUR 4013 Health Care in Culturally Diverse Populations – 3 hours (Fall, Spring, Summer)

This course explores current issues in health care pertaining to culturally diverse populations from a Christian perspective. Examines the social, economic, political, environmental, and religious factors that affect health in different cultural groups. Identifies therapeutic health care practices for culturally diverse clients, families, and communities.

HSC/NUR 4023 Health Care Finance – 3 hours (On demand)

This course examines financial principles, techniques, vocabulary, and procedures used to manage health care budgets and operations. Students will learn how to assess the health care financial environment, seek appropriate data, analyze information, and apply the results to the management of daily operations, using a Christian approach to fiscal responsibilities.

HSC 4133 Public Health & Education- 3 hours (On demand)

This course examines population-based approaches to public health. Introduction to concepts of health behavior and its role in public health; social determinants of health; applications to selected community health problems and issues. Comprehensive health education and promotion, health maintenance and disease prevention are emphasized and include the historical, economic, social, cultural, and political influences of population health.

HSC/NRS/NUR 4333 Research and Evidence Based Practice – 3 hours (Fall, Spring, On demand)

This course introduces students to the elementary components of the research process and the application of research to professional practice including the retrieval of relevant literature and critical appraisal. An emphasis is placed on the combined use of literature, clinical judgment, interprofessional perspectives, and patient preferences to guide practice decisions. Legal and ethical conduct for health care professionals involved in research and quality improvement involving diverse populations are examined. The role of theory in the research process with contribution to the development of health care knowledge is explored.

HSC 4343 Human Resource Management for Health Care Professionals – 3 hours (On demand)

This course examines the complexities and multiple issues involved in human resources management in health care organizations. It provides the student with the opportunity to explore the human resources in health care and their unique perspectives.

HSC/NRS/NUR 4434 Administration and Leadership – 4 hours (3 hours didactic, 1 hour practice experience) (Fall, Spring, On demand)

This course prepares students to provide high quality patient care exploring principles of organizational and systems leadership, including quality improvement, and safety through practice experiences. The course incorporates knowledge and communication strategies within interprofessional teams, care coordination, delegation, and developing conflict resolution strategies to be effective leaders and administrators in a complex and dynamic health care setting. Management theories and concepts are emphasized. Professional issues related to work-life balance, healthy work environments, and resource assistance in building a nursing career are also considered. Curriculum lab fee: \$25.

HSC 4444 Leadership and Management for Health Care Professionals – 4 hours (On demand)

This course examines the knowledge and skills necessary to be an effective leader and administrator in the current changing health care environment. There will be a focus on the application of servant leadership and the ability to design and implement programs. ASR or BSHS elective. Curriculum Lab Fee: \$100.

HSC 4453 Capstone (registration with permission only) – 3 hours (Fall, Spring)

This course provides an exploration and synthesis of knowledge and practice issues facing the health care profession and the health care system, and includes a discussion of issues in practice, education, and research. Each student will reflect on their learning in the BSHS program and evaluate their achievement of the BSHS Program Competencies. This class is limited to students who are enrolled in the final semester of senior year and intend to graduate at the end of this semester.

HSC/NUR 499(1-3) Independent Studies – 1-3 hours (On demand)

Student-proposed topics in nursing practice, education or research which are approved by faculty and division head for independent study. ASN, ASR, BSHS, or BSN course elective.

Hebrew

HEB 2013 Elementary Hebrew I – 3 hours (Fall, even years)

Introduction to the basic skills of translating biblical Hebrew with emphasis upon vocabulary, grammar, composition and translation. Prerequisites: BIB 1013/1213, 1023/1223.

HEB 2023 Elementary Hebrew II – 3 hours (Spring, odd years)

Continuation of HEB 2014 with an introduction to the Hebrew Old Testament through translating representative passages which are relatively uncomplicated. Prerequisite: HEB 2013.

HEB 3013 Intermediate Hebrew – 3 hours (Fall, odd years)

Focus is upon identifying the Masoretic pointing, parsing verbs, translating Old Testament narrative texts, and making syntactical judgments in exegesis. Prerequisite: HEB 2023.

HEB 3023 Advanced Hebrew – 3 hours (Spring, even years)

Focus is upon textual criticism, lexical study, translating Old Testament poetic and prophetic texts, and making syntactical judgments in exegesis. Prerequisite: HEB 3013.

HEB 495(1-3) Intensive Studies in Hebrew – 1-3 hours

Exegetical studies in selected books or passages of the Hebrew Old Testament. This course may be taken more than once. Prerequisite: HEB 2023.

History

HIS 1113 Introduction to the History of World Civilization: From the Earliest Times Through the Renaissance – 3 hours (Fall)

The roots of modern civilization from the dawn of agricultural society in the Middle East and other regions through the Renaissance in western Europe.

HIS 1123 Introduction to the History of World Civilization: From the Renaissance to the Present – 3 hours (Spring)

Examines the history of world civilization from the Reformation in Europe to the late twentieth century.

HIS/HON 2013 Honors United States History I – 3 hours (Fall, even years)

This course offers a political and social survey of United States history from colonization to the end of the Civil War. Prerequisite: A minimum composite ACT of 28 or SAT equivalent, or an SAT of 1300, or a CLT score of 86.

HIS 2213 History of the United States, 1492-1865 – 3 hours (Fall, Spring)

Political and social survey of United States history from colonization to the end of the Civil War.

HIS 2223 History of the United States, 1865-Present – 3 hours (Fall, Spring)

Political and social survey of United States history from the Reconstruction to the present.

HIS 295(1-4) Special Topics – 1-4 hours (On demand)

Topics of special interest not available to the student from the traditional course offerings. May be repeated as topics change.

HIS 3003 The US Civil War – 3 hours (On demand)

This class provides a detailed evaluation of the social, economic, and military aspects of the United States Civil War, with special emphasis on the effect of the War on the State of Missouri.

HIS/MIL 3153 American Military History – 3 hours (Spring, odd years)

American Military History from the colonial period to the present; its relation to the national development in war and peace. (May be taken through MSU.)

HIS 3323 Ancient Rome and the Empire – 3 hours (Spring, odd years)

A survey of Roman history tracing the main lines of political, social and cultural development from earliest times through the periods of the Republic, the early Empire and the High Empire through the reign of Constantine.

HIS 3333 Ancient Military History – 3 hours (On demand)

A survey of the development of weapons, armor, strategy, and tactics from the earliest recorded battles to the fall of the Roman Empire in 476 AD, including Biblical battles.

HIS 3423 Europe in the Middle Ages – 3 hours (Fall, odd years)

Traces the political, economic, social, intellectual and religious changes in western Europe from the late Roman Empire of the 4th century A.D. to the apex of the area's first advanced civilization, c. 1300 A.D.

HIS 3513 Europe during the Renaissance and Reformation Period – 3 hours (Spring, even years)

Traces the political, economic, social, intellectual, and religious conditions and developments in western Europe between the fourteenth and early seventeenth centuries. It emphasizes the Italian Renaissance and the Reformation movement.

HIS 3533 Early Modern Europe – 3 hours (Fall, even years)

Traces the political, economic, social, intellectual, and religious conditions and developments in western Europe between the mid-seventeenth and early nineteenth centuries. It emphasizes the Enlightenment movement.

HIS 3613 East Asian History to the Rise of the Mongols – 3 hours (On demand)

A survey of East Asian history tracing the political, economic, social, intellectual and religious conditions and developments in East Asia from earliest times to the Mongol Conquest. Particular emphasis will be placed on East Asian interaction with and influence on the Christian world.

HIS 3783 United States Diplomatic History, 1775-1928 – 3 hours (On demand)

Survey of late 18th and 19th Century diplomatic relations of the United States. Prerequisite: HIS/HON 2013 or HIS 2213 or 2223.

HIS 3813 Colonial and Revolutionary America – 3 hours (Fall, odd years)

This course covers important topics in American history from the voyage of Columbus in 1492 to the ratification of the Constitution in 1788. The course emphasizes the development of England's American colonies, the independence movement and the successful establishment of the United States of America.

HIS 3823 America in the Early National and Civil War Eras – 3 hours (Spring, even years)

This course covers important topics in American history from Washington's inauguration as president in 1789 to the end of Reconstruction in 1877. The course will examine the important political, social, intellectual and economic areas of American development during the early national and Civil War eras.

HIS 3833 Gilded Age and Progressivism, 1877-1928 – 3 hours (Fall, even years)

A topical exploration of the period with emphasis on politics, the rise of big business, intellectual history, social and economic reform, imperialism, and society's efforts to meet the challenges of the industrial age. Course requirements stress reading, writing and class participation.

HIS 3843 Recent United States History, 1929-1991 – 3 hours (Spring, odd years)

A topical exploration of the period with emphasis on the Great Depression and New Deal, America's confrontation with totalitarianism during World War II and the Cold War, the domestic effects of WWII and the Cold War, the Civil Rights Movement, Vietnam, Watergate, the Johnson, Nixon, and Reagan presidencies, and the collapse of the Soviet Union.

HIS 3893 United States Diplomatic History, 1929-Present – 3 hours (On demand)

Survey of 20th century diplomatic relations of the United States. Prerequisite: HIS/HON 2013 or HIS 2213 or 2223.

HIS/POL 4013 African History and Politics – 3 hours (Spring, odd years)

Explores the political and economic changes in African states and the issues of development since independence. Included in the study are the historical origins of the African state, the contemporary context of globalization, and the position of Africa in the world economic system. Prerequisite: POL/HON 1013 or POL 1113.

HIS 4303 The Ancient Near East – 3 hours (Fall, odd years)

A survey of Ancient Near Eastern history tracing the main lines of political, social, and cultural development from the earliest times to the Roman Conquest.

HIS 4313 Ancient Egypt – 3 hours (Spring, even years)

A survey of Egyptian history tracing the main lines of political, social, and cultural development from the earliest times to Egypt's conquest by the Romans in 31 BC.

HIS 4323 Ancient Greece – 3 hours (Fall, even years)

A survey of Greek history tracing the main lines of political, social, and cultural development from the origin of the Mycenaeans to the Roman conquest of the Greek world.

HIS 4413 Roman Imperial Civilization and the Early Church – 3 hours (On demand)

A detailed study of the period from c. 50 B.C. to c. A.D. 450. Emphasis is placed on the political, social, economic, religious and intellectual characteristics of the Hellenistic civilization of that period. Special attention is given to the Jewish sub-culture and the emerging Christian movement in that context.

HIS 4503 History Capstone Seminar – 3 hours (Fall)

This course provides history majors with a capstone experience for their History degree and helps prepare them for the required History ACAT Examination in World and US History. Prerequisites: History major, Junior standing.

HIS 495(1-4) Intensive Studies in History – 1-4 hours (On demand)

Seminar or directed class investigation of selected topics in the context of current historiographical opinion. Content variable. Student may elect to repeat the course. Prerequisite: Nine hours of history.

HIS 499(1-3) Independent Studies – 1-3 hours (On demand)

(History majors; Social Science Education majors) Advanced studies of specific topics arranged by division head. Prerequisite: History or Social Science Education major, 15 hours of history and 60 or more hours of credit.

Methods of Teaching Social Science in the Middle and Secondary Schools

(See EDU 4023).

Honors

HON 1003 Honors Fine Arts – 3 hours (Fall)

This course is intended for students enrolled in the Dutile Honors Program. The course is designed to provide students with a basic understanding of the music and art of various cultures and historical periods. Prerequisite: Enrollment in the Dutile Honors Program. Course fee: \$55.

HON/POL 1013 Honors American Government and Politics – 3 hours (Fall, odd years)

This course surveys the origin, organization, and policy of United States government at the national, state, and local levels and encourages citizen participation and leadership in democratic processes beginning at the community level. Fulfills the Missouri statutory requirement. Prerequisite: A minimum composite ACT of 28, or an SAT of 1300, or a CLT score of 86.

HON 1111 University Seminar – 1 hour (Fall)

This course is designed to acclimate students to college coursework by promoting processes that lead to success such as effective time management and research-based study strategies. Examining these processes provides an understanding of the individual student's strengths and weaknesses related to studying and learning. Additionally, the course acclimates students to SBU and SBU's mission while considering the relationship between an individual's values and goals and his or her academic performance and future direction. This course must be taken during the first semester a student attends SBU. Prerequisite: Enrollment in the Dutile Honors Program. Course fee: \$12.

HON 1121 Introduction to Critical Thinking – 1 hour (Spring)

This course is designed to promote awareness of a personal value system as well as to promote the use of critical thinking skills in the study of issues in today's society. Prerequisite: Enrollment in the Dutile Honors Program.

HON/ENG 1123 Honors Composition – 3 hours (Fall)

An honors-level course in expository writing based on a study of imaginative literature. The course fosters the development of writing and research skills. Fee \$2. Prerequisite: An English score of at least 28 on the ACT examination or a Verbal Reasoning + Grammar/Writing CLT sub score of 59 or higher. A grade of C or above in this course and the payment of a transcription fee permit the student to receive credit for ENG 1113 also. Enrollment in the Dutile Honors Program.

HON/BIB 1213 Honors Old Testament History – 3 hours (Fall)

A survey of the literature, history, and theology of the Old Testament with a concern for discerning its contemporary relevance. Prerequisite: Enrollment in the Dutile Honors Program or a minimum ACT of 28, or an SAT of 1300, or a CLT score of 86.

HON/BIB 1223 Honors New Testament History – 3 hours (Spring)

A study of the life of Jesus and the founding of the church in the New Testament with attention given to historical background, literary features, theological teaching, and contemporary relevance. Prerequisite: Enrollment in the Dutile Honors Program or a minimum composite ACT of 28, or an SAT of 1300, or a CLT score of 86.

HON 2003/ECO 2043 Honors Literacy in Free Enterprise (LIFE) Economics – 3 hours (Fall, odd years)

Honors LIFE Economics is the study of basic macro- and microeconomic concepts for non-business majors. This course will help the student develop an understanding of economic systems based on freedom. It will emphasize the importance of individual initiative and involvement in day-to-day community and business matters. Developing literacy about individual responsibility in personal and community decision-making is a primary concern. As an honors section, this class will explore the topic of free enterprise and economics through classroom discussion, enrichment activities and field trips. Prerequisite: Enrollment in the Dutile Honors Program or a minimum composite ACT of 26, or an SAT of 1250, or a CLT score of 83.

HON/HIS 2013 Honors United States History I – 3 hours (Fall, even years)

This course offers a political and social survey of United States history from colonization to the end of the Civil War. Prerequisite: Enrollment in the Dutile Honors Program or a minimum composite ACT of 28, or an SAT of 1300, or a CLT score of 86.

HON/COM 2213 Honors Fundamentals of Speech Communication – 3 hours (Spring)

Foundations of speech communication with special emphasis on the theory and practice of effective public speaking. Progressive work in speech preparation and delivery and exploration of classical and contemporary rhetorical principles. Prerequisite: Minimum composite ACT of 25, or an SAT of 1200, or a CLT score of 78, or enrollment in the Dutile Honors Program.

HON 2661 Honors Reading Symposium – 1 hour (Fall)

A student symposium devoted to the discussion of books and film. Students choose the theme for the semester, as well as the books and films to evaluate. Students reflect on books and films in written and/or oral form. Prerequisite: HON 1121.

HON 2771 Honors Journal Club – 1 hour (Spring)

A student symposium dedicated to the exploration of the epistemology of different disciplines. Students will read within the literature of their chosen discipline in order to investigate and articulate the epistemological assumptions, which undergird that discipline. Prerequisite: HON 1121.

HON 3771 Honors Colloquium – 1 hour (Fall, Spring)

The Honors Colloquium is a faculty directed symposium on rotating topics not otherwise offered in the curriculum. It will include student presentations, guest speakers, and panel discussions. Prerequisite: HON 1121.

HON 3883 Honors Service Learning – 3 hours (Spring)

This course is designed to involve students in activities that address community-identified needs while developing their academic skills and commitment to their community. The content of the course will

vary each time it is offered in relation to the community partnership for the course at that time. Students will engage in readings, reflection, and assigned service. Prerequisite: HON/UNI 1121 and Minimum 28 composite ACT, or an SAT of 1300, or a CLT score of 86.

HON 477(1-3) Senior Honors Capstone Experience – 1-3 hours (Fall, Spring)

For seniors officially enrolled in the Dutile Honors Program. This course is offered in the student's field of study and includes the integration of faith and discipline. Each student will be required to write a proposal for an individualized capstone experience and obtain the approval of the Honors Program Director, as well as the supervising faculty member. Experiences may include, but are not limited to, grant writing, research leading to publication, or a project integrating the various components of the Dutile Honors Program.

Intercultural Studies

ICS 2013 Anthropology for Cross-Cultural Service – 3 hours (Fall, even years)

An introduction to cultural anthropology as a practical basis for cross-cultural service with a special emphasis on the relationship between religion and culture.

ICS 2118 Barefoot Language Learning – 8 hours (Semester Abroad)

An intensive immersion in language acquisition which utilizes classroom instruction in a foreign country as well as cross-cultural social relationships including living with a national family.

ICS 290(1-3) Same-Culture Service Project – 1-3 hours

Participation in a field service project to an English-speaking group similar to one's own identity. Approval necessary by the division head. P/F credit. Course fee \$265 per credit hour.

ICS 291(1-3) Cross-Cultural Service Project – 1-3 hours

Participation in a cross-cultural field project to either a non-English speaking group or a group of significantly different ethnic identity. Approval necessary by the division head. Course fee \$265 per credit hour.

ICS 3023. Cross-Cultural Life and Service - 3 hours (Fall, odd years)

Life-style development provides an important foundation for cross-cultural service. This includes spiritual formation, life skills, and ministry competencies. This course is required for Intercultural Studies major and recommended for other students interested in cross-cultural life and service.

ICS 3033 Introduction to Missions – 3 hours (Spring, odd years)

This introductory course in missions seeks to develop in the student an understanding of missions as practiced in an international context. Emphasis will be given to helping students understand their own future ministry and how it can relate to global missions.

ICS 4023 Introduction to Church Planting – 3 hours (Spring, even years)

A study of principles concerning an indigenous, culturally contextualized, biblical Christian community in terms of its worship, discipling, leadership call and roles, pastoral care, social structures, world-view formation, and cell multiplication.

ICS 4063. Ethnography and Spirituality – 3 hours

Applied field research on the cultural and spiritual life of a specific people, based upon principles of cultural anthropology. Instruction provided on the field and through distance communication. This course meets a requirement for ICS semester abroad studies.

ICS 4123. Urban Ministries – 3 Hours (Spring, odd years)

An introduction to the diversity of ministries which meet human needs, make disciples, and develop churches in urban areas.

ICS 4313 World Religions – 3 hours (Spring, even years)

This course introduces students to the thought and practice of world religions including: Hinduism, Buddhism, Confucianism, Taoism, Islam and animism. Consideration also is given to the issues of religious pluralism, theology of religions, and the appropriate response to each.

ICS 4343 Islamic Studies – 3 hours

An overview of Islam from its early inception to the present time, with a broad treatment of the diversity of beliefs and practices within the Muslim world community in order to help the Christian worker recognize both difficulties and possibilities for Muslim evangelism.

ICS 4953 Intensive Topics – 3 hours (Fall, Spring)

Selected topics of special interest in the area of cross-cultural ministry. Areas of study will vary from year to year.

ICS 498(1-3) Apprenticeship Practicum – 1-3 hours (Semester Abroad)

On-the-job cross-cultural training under the supervision of a cross-cultural resident. Approval of division head.

Interdisciplinary Studies

IDS 1112 Reading Skills – 2 hours (Fall, Spring)

Skills in skimming, underlining, outlining, increasing vocabulary, improving comprehension and speed are discussed and practiced in relationship to current university courses. One lecture, two laboratories each week. Lab fee \$10. Taught off-campus only.

Kinesiology

KIN 1001 Bowling – 1 hour (On demand)

Study and practice in the fundamental skills of bowling. Course fee \$45.

KIN 1012 General Activities I – Team Sports – 2 hours (On demand)

Instruction in skills, knowledge of rules and strategy, care of equipment and history of team sports. Activities will include team sports such as soccer, flag football, volleyball, and softball. Students are expected to participate daily so they get the benefit of physical activity. Course fee \$25. (Required of physical education majors.)

KIN 1022 General Activities II – Individual and Dual Sports – 2 hours (On demand)

This is an instructional course in skills, knowledge of rules and strategy, care of equipment, and history of individual sports. Activities include badminton, archery, step aerobics, weight training, pickle ball, and billiards. Students are expected to participate daily to get the benefit of physical activity. Course fee \$25. (Required of physical education majors.)

KIN 1023 Individual and Team Activities – 3 hours (Spring)

This course is an instructional course in skills, knowledge of rules and strategy and care of equipment. Activities will include soccer, flag football, volleyball, ultimate Frisbee, floor hockey, lacrosse, badminton, pickle ball, croquet, bocce ball, and Frisbee golf. Course fee \$35.

KIN 1031 Tennis – 1 hour (On demand)

Basic skills, rules and courtesies of tennis are presented.

KIN 1033 Foundations of Physical Education – 3 hours (Spring)

A course designed to help students develop perspectives in the field of physical education. Students will examine the different settings; kinds of programs; qualifications needed to enter the profession; career opportunities; and issues facing physical educators.

KIN 1041 Golf – 1 hour (On demand)

Basic skills, rules and individual performance in golf. Course fee \$40.

KIN 1043 Personal and Community Health – 3 hours (Fall, Spring)

Study of major health problems and factors determining health. Special considerations given to principles and practices of good health for individual and community concerns.

KIN 1051 Beginning Racquetball – 1 hour (On demand)

Beginning racquetball is a course designed to introduce the student to the sport of racquetball. The student will learn the rules of the game, equipment necessary for safe and competitive play, skills necessary for competent court play, and options for practice sessions and matches. Course fee \$20.

KIN 1071 Beginning Swimming – 1 hour (On demand)

Instruction in skills and techniques for beginning swimming. The American Red Cross Beginners Test must be passed for course credit to be received. Course fee \$10. (Required of physical education majors.)

KIN 1081 Life-Guard Training – 1 hour (Spring, On demand)

Skills and techniques of life saving as identified in the American Red Cross Water Safety Program will be emphasized. Course fee \$30.

KIN 1131 Aerobic Exercise – 1 hour (Spring, On demand)

Step and floor aerobics will be utilized to develop skills and expertise in designing a cardiorespiratory program for lifetime wellness. Course fee \$5.

KIN 1142 Outdoor Adventure Skills – 2 Hours (On demand)

Instruction and experience in outdoor skills of archery, hunting, fishing, camping, orienteering and outdoor living. Safety and environmental concerns will be incorporated. Course fee \$70.

KIN 1162 Foundations of Physical Fitness/Wellness – 2 hours (Fall, Spring, Winterfest, Summer)

Study and participation in programs recommended for development of adult physical fitness. Emphasis is on determining level of fitness, importance of fitness in total well being, nutrition and diet selection, monitoring effect of fitness activities, selection of fitness/wellness programs, stress management, and program implementation. Course fee \$10.

KIN 1163 Foundations of Physical Fitness for Professionals – 3 hours (Fall, Spring)

Study and participation in programs recommended for the development of adult physical fitness. Emphasis on determining the level of fitness, importance of fitness in one's total continuing well-being, nutrition and diet selection, monitoring the effect of fitness activities, selection of fitness/wellness programs, stress management, and program implementation. Special consideration will be given to how professionals in Physical Education, Exercise Science, and Sport Management may apply this information to their field. Course fee \$10.

KIN 1171 Advanced Swimming – 1 hour (Fall, On demand)

The American Red Cross Advanced Test must be passed for course credit to be received. Instruction on advanced skills and techniques for swimming will be utilized. Course fee \$5.

KIN 1181 Aqua Exercise – 1 hour (Fall, Spring, On demand)

Instruction in skills and techniques of exercise in the water. Course fee \$5.

KIN 1201 Rock Climbing – 1 hour (On demand)

Students will be taught the theoretical and technical basics of rock climbing. The focus of the course will be to teach the student technique and safety. Knowledge and practice will provide the student a personal lifetime sport. Course fee \$10.

KIN 1211 Walleyball – 1 hour (On demand)

This is an introductory course to Walleyball. Rules of the game, equipment necessary for safe and competitive play, skills for competent court play, and options for practice sessions and matches make up the course.

KIN 2011 Scuba Diving – 1 hour (Fall, On demand)

Theory and techniques of scuba diving. Ten lessons in pool and four open water classes. All equipment provided. Course fee \$195.

KIN 2012 Officiating Sports – 2 hours (Fall, On demand)

A study of the rules, methods and techniques of officiating sports. Emphasis will be on major sports. Course fee \$65.

KIN 2023 Perceptual Motor Development – 3 hour (Fall, Spring)

Methods of teaching children through movement experiences. An emphasis will be placed on perceptual motor development as it relates to movement.

KIN 2032 Coaching of Volleyball – 2 hours (Fall, On demand)

Study of offensive and defensive skills and strategy of volleyball. Coaching methods, strategy and organization of practice and matches are emphasized.

KIN 2042 Psychology of Coaching – 2 hours (Fall, On demand)

An examination of the psychological principles that apply in coaching, athletics and physical activity.

KIN 2052 Coaching of Softball and Baseball – 2 hours (Spring, On Demand)

The methods and materials used in coaching softball and baseball will be examined. A study of practice organization, skill analysis, teaching methods for each position, purchase and care of equipment. Conditioning will be included.

KIN 2063 School Health Education – 3 hours (On demand)

Curriculum for and methods of teaching health education in elementary and secondary schools.

KIN 2133 Principles of Human Anatomy – 3 hours (Winterfest)

Study of the structure of the human body including study at the cellular, tissue, and organ level. Emphasis will be on the organ systems operational in effecting human movement. Prerequisite: BIO 1003, BIO 1001.

KIN 2143 Lifetime Activities – 3 hours (Fall)

The focus of this course is to equip the student with knowledge, safety, and experience of those physical activities an individual can participate in for a lifetime. Activities will include golf, tennis, bowling, rock-climbing, hiking, backpacking, fly fishing, bait casting, archery, basic orienteering, and hunter's safety. Course fee \$70.

KIN/BIO 2243 Nutrition – 3 hours (Fall, Spring)

Nutritional requirements of mankind with emphasis on the roles of nutrients in the body throughout the life cycle. *Note:* This course may not be included in the curriculum for a biology major.

KIN 3012 Coaching of Football – 2 hours (Fall, On Demand)

Study of offensive and defensive systems; methods of coaching football.

KIN 3013 Teaching of Individual and Dual Sports – 3 hours (Spring, On demand)

Class organization, teaching and coaching methods for selected individual and dual sports. Prerequisites: KIN 1012 and KIN 1022.

KIN 3022 Coaching of Basketball – 2 hours (On demand)

Study of components of basketball. Emphasis on individual and team skills, conditioning and strategy of play.

KIN 3032 Advanced Scuba Diving – 2 hours (Fall, On demand)

This course, upon completion, will certify the student as an Advanced Specialty Diver. It is the second course in sequence to Basic Scuba Diving. Course Fee: \$195.00. Prerequisite: KIN 2011.

KIN 3043 Analysis of Basic Rhythms – 3 hours (Fall, odd years)

Study of basic rhythms patterns including application of music used in basic movements. Application of teaching methods used in Tinkling, square dance, line dance, ballroom dance, and many more basic rhythms used in the physical education curriculum. Tempo, beat, and flow techniques are implemented into each topic. Course fee \$25.

KIN 3053 Measurement and Evaluation in Sport – 3 hours (Spring)

A course to acquaint students with various evaluation methods in physical education. Practice is given to administering tests and interpreting results with appropriate statistical procedures. Course Fee: \$25.

KIN 3062 Coaching of Track and Field – 2 hours (Spring, On Demand)

Study of accepted forms of track and field events; factors affecting endurance, speed and fatigue; preparation and selection of contestants for competition; and management techniques.

KIN 3073 Physiology of Exercise – 3 hours (Fall, Spring)

Study of the effects of exercise on the organs and systems of the body; special emphasis on the cardio-respiratory system. Prerequisite: KIN 2133 or BIO 2204. Course fee \$25.

KIN 3083 Care and Prevention of Athletic Injury – 3 hours (Fall, Spring)

The course is designed for students to understand the basic care and prevention of athletic injuries, including the identification of common physical disorders, sports trauma, typical injury management, taping, bracing, and medical documentation. Prerequisite: KIN 2133. Course fee \$50.

KIN 3093 Responding to Emergencies – 3 hours (Fall, Spring)

Study of treatment for common emergencies including treatment of wounds, shock, poisoning, fractures, unconsciousness and stoppage of breathing. American Red Cross certificate may be earned. Fee \$80.

KIN 3133 Teaching Elementary Physical Education – 3 hours (Spring)

Teaching methods; selection of activities; program planning; emphasis on development of a progressive curriculum. Course fee \$20. In order to enroll in EDU 3133 a GPA of 3.00 is required.

KIN 4001—Kinesiology Capstone – 1 hour (Fall, Spring)

Exploration of professional development topics and issues facing professionals in the fields of exercise science and sport management. Students will receive information related to professional ethics, etiquette, preparation of professional documents, membership in professional organizations, and continuing education opportunities.

KIN 4003 Kinesiology – 3 hours (Fall, Spring)

Study of skeletal and muscle systems as they relate to physical education and athletic movements. Practice is given in identification of proper form and procedures for correcting errors in sports movements. Prerequisite: KIN 2133.

KIN 4013 Sport in American Society – 3 hours (Spring)

Presents an introduction to basic issues and current research in the psychological and sociological aspects of American sport, physical activity, and leisure. Specific emphasis is placed on the influence of sport as a social system and the influence of the psychology on the athlete or in sports. Prerequisite: 64 hours completed.

KIN 4043 Adapted Physical Education – 3 hours (Fall)

Surveys areas of exceptionalities that occur within a physical education class as well as in a classroom setting. It is designed to help the prospective physical education teacher identify and understand the unique problems of the disabled individual giving specific consideration to mental retardation, pervasive development disorders, learning disabilities mental health disorders, physical disabilities, communication and visual disorders, health impairments, aging, juvenile and adult corrections.

KIN 4533 Secondary Methods of Teaching Physical Education – 3 hours (Fall)

Teaching methods; selection of activities; program planning; emphasis on development of a progressive curriculum (restricted to physical education majors.) In order to enroll in KIN 4533 a GPA of 3.00 is required.

KIN 4773 Principles of Strength Conditioning – 3 hours (Fall)

This is an in depth course which covers specific resistance training and conditioning as it pertains to athletes and adults. It is a cumulative course that allows students to apply human physiology and biomechanics as they relate to human performance. This course is to prepare the student for the Personal Strength and Conditioning certification test. Prerequisite: 96 hours completed. Course Fee: \$25.

KIN 495(1-4) Intensive Studies in Physical Education – 1-4 hours (On demand)

An intensified approach to selected physical education topics or subject matter not regularly offered by the division. Areas of study will vary. Prerequisite: 96 hours completed.

KIN 497(1-3) Physical Education Symposium – 1-3 hours (On demand)

Credit given by special short-term, but intensified, study in the field of physical education including labs, workshops, clinics or conferences sponsored by national, regional or state associations or agencies. Prerequisite: 96 hours completed.

KIN 499(1-3) Independent Studies – 1-3 hours (Fall, Spring)

Exploratory projects of undergraduate research and directed individual study in health and physical education areas not included in the regular curriculum. See further guidelines in this catalog under "Independent Study." Prerequisite: 96 hours completed.

Varsity Sports

KIN credit will be granted for participation in varsity sports. Course numbers for varsity sports are as follows:

- *Men's Varsity Basketball*: 1091-1; 3091-1 (Fall, Spring)
- *Women's Varsity Basketball*: 1091-2; 3091-2 (Fall, Spring)
- *Men's Varsity Soccer*: 1111-1; 3111-1 (Fall)
- *Women's Varsity Soccer*: 1111-2; 3111-2 (Fall)
- *Men's Varsity Baseball*: 1191-1; 3191-1 (Spring)
- *Men's Varsity Tennis*: 1291-1; 3291-1 (Spring)
- *Women's Varsity Tennis*: 1291-2; 3291-2 (Spring)
- *Men's Varsity Cross Country*: 1391-1; 3391-1 (Fall)
- *Women's Varsity Cross Country*: 1391-2; 3391-2 (Fall)
- *Men's Varsity Football*: 1491-1; 3491-1 (Fall)
- *Men's Varsity Track*: 1591-1; 3591-1 (Spring)
- *Women's Varsity Track*: 1591-2; 3591-2 (Spring)
- *Men's Varsity Golf*: 1691-1; 3691-1 (Spring)
- *Women's Varsity Golf*: 1691-2; 3691-2 (Spring)
- *Women's Varsity Softball*: 1791-2; 3791-2 (Spring)
- *Women's Varsity Volleyball*: 1891-2; 3891-2 (Fall)
- *Cheerleading*: 1991-1; 3991-1 (Fall, Spring)

Leadership

LDR 2023 Introduction to Leadership – 3 hours (On demand)

The study of leadership concepts and practices, including an emphasis on the nature and application of servant leadership in a global society. The theoretical basis of leadership is examined. This course should help one discover, understand and develop his/her preferred “style” of leadership.

LDR 3023 Leadership Development in Organizations – 3 hours (On demand)

An examination of leadership issues within institutions, including non-profits, companies, private and public organizations, with an emphasis on the ability of leaders to design and implement training and development programs within organizations.

LDR 4043 Ethics and Professional Development – 3 hours (Fall, Spring)

A senior-level course that equips the graduating student with the life skills and information necessary for making the transition from college to the professional world. Emphases will be placed on career development, etiquette, and personal financial planning. Particular attention will be given to the role of personal and professional ethics from a Christian worldview. Course fee \$50. Prerequisite: 64 credit hours completed.

LDR 4063. Leadership Development - 3 hours (Spring)

A review of leadership theory with an emphasis given to the moral and ethical aspects related thereto. The identification and development of leadership characteristics will be stressed with the intent to inspire moral gains on a personal and organizational level. Various tools will be utilized throughout the course to facilitate the identification or development of a student's leadership traits. Prerequisite: Application and acceptance to the MBA program is necessary prior to enrolling in this course. Fee \$150.

LDR 4773 Contemporary Issues in Leadership – 3 hours (On demand)

A study of the cultural, ethical and philosophical issues involved in leadership. This course is the capstone requirement for leadership studies and addresses these issues in the context of a required

community project. Students will design and implement a leadership project. Presentations of the project will be made at the conclusion of the course.

LDR 495(1-3) Intensive Studies in Leadership – 3 hours (On demand)

A study of the cultural, ethical and philosophical issues involved in leadership. This course is the capstone requirement for leadership studies and addresses these issues in the context of a required community project. Students will design and implement a leadership project. Presentations of the project will be made at the conclusion of the course.

Management

MGT 295(1-4) Special Topics in Management – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

MGT 3013 Principles of Management – 3 hours (Fall, Spring, Winterfest)

The study of the process of management, which is the coordination of all the resources of organizations in order to achieve organizational objectives. The management process will be described, analyzed and applied to all types of organizations, indicating the universality of management. Prerequisite: 24 credit hours completed.

MGT 3033 Operations Management – 3 hours (Fall, Spring)

An introduction to operations management, which is the design, operation and improvement of the processes that transform inputs into finished goods and services so as to meet the goals of both manufacturing and service organizations. Students learn how to apply the basic analytical models to operations decisions involving planning, scheduling and controlling product and service facilities, product and service design, processes, cost, quality, quantity assurance, production, capacity, inventory management, just-in-time production, supply chain management, project management and distribution requirements. Prerequisite: BUS 2023.

MGT 4033 Human Resource Management – 3 hours (Fall, Spring odd years)

Focuses on the policies, methods and techniques that professional personnel and human resource managers create and implement to achieve successful human resource programs. Prerequisites: BUS 2013 and MGT 3013.

MGT 4043 Organizational Behavior and Theory – 3 hours (Fall, Spring even years)

Theory of organizations, individual and group behavior, organizational processes and change. This course is a requirement for many graduate programs in business. Prerequisite: MGT 3013.

MGT 4063 Entrepreneurship and Small Business – 3 hours (Fall, Summer)

Integrates knowledge of the functional areas of entrepreneurial business development, central themes being the impact of the owner or founding team of the company, and the development of systems that will lead to sustainable growth. Emphasis is placed on planning, starting, growing, managing, and expanding a business, with a particular focus on writing a business plan. Prerequisite: MGT 3013.

MGT 4083 Strategic Management – 3 hours (Fall, Spring)

Examine the cooperation that must exist across various functional areas of the business to effectively scan the environment and formulate, implement, evaluate and control corporate objectives, strategies, and policies in order to positively influence the long-term performance of the organization. A business simulation program will be extensively utilized to reinforce the objectives of the course. This course is the capstone requirement for majors in computer information science and all majors from the Division of

Business. Prerequisites: ACC 2043, ECO 2023, ECO 2033, MGT 3013, MKT 3023, FIN 3053, and I10 credit hours completed. *Note:* To be taken at SBU only during last semester.

MGT/MKT 4153 Retailing – 3 hours (Fall)

Explores the essential elements of the retail management process. Topics to be covered include strategic planning, the evaluation of retail customers and competitors, target market and location selection, the retailing marketing mix, store design, and managing human resources. Prerequisites: MKT 3023, MGT 3013, and ECO 2023.

MGT 495(1-4) Intensive Studies in Management – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

MGT 499(1-3) Independent Study in Management – 1-3 hours (On demand)

Independent study of some problem or area in the major not covered in the organized courses. The study is under the direction of a faculty member in whose field of specialization the problem or area lies.

Prerequisites: 3.00 GPA in major field and 60 credit hours completed.

Marketing

MKT 295(1-4) Special Topics in Marketing – 1-4 hours (On demand)

Topics will vary with each offering; therefore, the course may be repeated for credit.

MKT 3023 Principles of Marketing – 3 hours (Fall, Spring)

The study of the system of activities that constitute marketing with emphasis on the principles, policies and strategies utilized to identify and satisfy the needs and wants of consumers. The universal application of marketing management in all forms or organizations is stressed. Prerequisite: 24 credit hours completed.

MKT 3033 Consumer Behavior – 3 hours (Spring)

Introduces the key terms, definitions, and concepts used to describe consumer behavior. Students will learn how we shape our product choices and purchase decisions by investigating the ways we think; the ways we process, store, and retrieve information when needed; and how relationships with others affect these decisions. Prerequisite: MKT 3023.

MKT 3073 Professional Selling – 3 hours (Winterfest)

Investigation, study and practice in the science and art of salesmanship, with emphasis on the consultative or professional approach to ascertaining the needs and wants of others, and assisting them to obtain satisfaction. Prerequisites: MKT 3023 and COM 1103 or COM 2393.

MKT 3083 Advertising – 3 hours (Fall)

This course is designed as a creative, innovative introduction to advertising. Types of advertising media, copy and style will be evaluated, and emphasis will be placed on creativeness in advertising. This course includes a semester-long advertising campaign project. Prerequisite: MKT 3023. Recommended: ART 2703.

MKT 4013 Marketing Research – 3 hours (Spring, odd years)

Provides the student with a basic understanding of the research process as it applies to marketing and business problems. Subjects covered include the scientific method, problem definition, research design, data collection, data analysis, and interpretation. A comprehensive research project and selected case analysis provide opportunity for relating the theoretical concepts and techniques to real world problems. Prerequisites: MKT 3023 and BUS 2023.

MKT 4023 Marketing Management – 3 hours (Fall)

Advanced study of the role and responsibilities of marketing executives. Emphasis will include the analysis, planning, organization, implementation and control of marketing programs. Prerequisites: MKT 3023 and MGT 3013.

MKT/MGT 4153 Retailing – 3 hours (Fall)

Explores the essential elements of the retail management process. Topics to be covered include strategic planning, the evaluation of retail customers and competitors, target market and location selection, the retailing marketing mix, store design, and managing human resources. Prerequisites: MKT 3023 and MGT 3013.

MKT 4253 Digital and Social Media Marketing – 3 hours (Spring)

This course covers a variety of topics including online advertising, email marketing, mobile advertising, search engine optimization, social media marketing, online listening and monitoring, and web and social media analytics. Through course assignments and a final project/presentation, students develop capabilities in designing, implementing, and evaluating digital marketing strategies. Students also have the opportunity to gain hands-on learning experience by participating in digital marketing online learning modules. Prerequisite: MKT 3023.

MKT 4263 Strategic Marketing – 3 hours (Fall)

This course equips students with the knowledge and skills necessary to plan and execute strategies and tactics typically assigned to the marketing function of organizations. It addresses critical factors affecting product and enterprise competitiveness, including allocating resources; designing, pricing and positioning products; creating awareness through promotion; creating accessibility through distribution strategies; and integrating the marketing function with other functions of the organization. Prerequisite: Application and acceptance to the MBA program is necessary prior to enrolling in this course. Fee: \$150.

MKT 495(1-4) Intensive Studies in Marketing – 1-4 hours (On demand)

Topics will vary with credit offering; therefore, the course may be repeated for credit.

MKT 499(1-3) Independent Study in Marketing – 1-3 hours (On demand)

Independent study of some problem or area in the major not covered in the organized courses. The study is under the direction of a faculty member in whose field of specialization the problem or area lies. Prerequisites: 3.00 GPA in major field and 60 credit hours completed.

Mathematics

MAT 0103 Pre-Algebra – 3 hours (No longer offered as of Fall 2020)

This course gives a review of and practice in basic mathematical skills. Applications studied include the use of whole numbers, common and decimal fractions, and percents. The subjects of perimeter, area, and volume are investigated; and concepts of measurement are developed using consumer problems. This course is recommended for students with less than one unit of high school algebra or who have a score of less than 16 on the Math ACT. There will be three hours of lecture and one hour of laboratory work each week. This course does not count toward the 128 hours required for graduation. Lab fee \$18.

MAT 0243. Mathematical Literacy – 3 hours (Fall, Spring)

This course is a one-semester preparatory course for MAT 1243-Algebraic Reasoning and Modeling. The emphasis is on active learning, applications, and context. Topics include utilizing a spreadsheet tool, numeracy, notation, formula manipulation, data analysis, pattern recognition, mathematical reasoning, linear and exponential models, and basic statistics. There will be three hours of lecture and one hour of laboratory work each week.

MAT 1163 Pre-Calculus – 3 hours (Summer Online and On Demand)

This course is a rapid and in depth review of algebra, trigonometry functions in the context that it will be used in Calculus. It is intended for the student needing additional algebra and/or trigonometry skills to enable success in MAT 1195 (Calculus) or MAT/BUS 1193 (Business Calculus). Prerequisite: Score of 24 or higher on Math ACT Examination, or a CLT Quantitative Reasoning sub score of 21 or higher, or a minimum grade of C in MAT 1243 or its equivalent.

MAT 1173 Discrete Mathematics – 3 hours (Fall, Spring)

This course is a study of mathematical concepts that are not dependent upon the continuum. Topics will include sets, logic, combinatorics, probability, functions, relations, matrix algebra, Boolean algebra and graph theory. The concept of proof and the nature of proof will also be explored. Prerequisite: MAT 1243 or its equivalent with a minimum grade of C.

MAT/BUS 1193 Business Calculus – 3 hours (Fall, Spring)

This course studies derivatives and antiderivatives of functions, inclusive of exponential and logarithmic functions, with applications to business and economics. This course is not open to mathematics majors. Prerequisite: MAT 1243 or its equivalent with a minimum grade of C, MAT 1163 or its equivalent with a minimum grade of C, or score of 24 or higher on the Math ACT. *Note:* MAT 1193 is a terminal math course. Students desiring further study of calculus must take MAT 1195. Also, a student who takes BUS/MAT 1193 and MAT 1195 will receive credit for only MAT 1195.

MAT 1195 Calculus I – 5 hours (Fall, Spring)

This course studies graphs, functions, plane analytical geometry, limits, continuity, derivatives, velocity-acceleration, rates of change, maxima and minima, differentials, the Mean Value Theorems for integrals and derivatives, antiderivatives, definite integrals, area, and methods of finding volumes. Prerequisite: MAT 1163 or its equivalent with a minimum grade of C; MAT 1243 or its equivalent with a minimum grade of C; or score of 26 or higher on the Math ACT. *Note:* A student who takes BUS/MAT 1193 and MAT 1195 will receive credit for only MAT 1195.

MAT 1243. Algebraic Reasoning and Modeling (formerly MAT 1143-College Algebra) – 3 hours (Fall, Spring)

This course explores the use of algebra in the real world. This exploration takes place by examining the concept of function. Conceptual understanding of linear, exponential, logarithmic, quadratic, and other polynomial functions is grounded in the collection and statistical analysis of real world data. Functions will be used to solve real world problems using modeling techniques. The concept of function is also explored in detail using analytic geometry. Prerequisite: Score of 18-25 on the Math ACT or a minimum grade of C in MAT 0243 Mathematical Literacy.

MAT 2255 Calculus II – 5 hours (Spring)

This course examines derivatives and integrals of functions and their inverses including exponential and logarithmic functions. It also investigates techniques of integration, further applications of integrals, sequences, series, polar coordinates, applications of parametric equations, and conic sections. Prerequisite: MAT 1195 or its equivalent with a minimum grade of C.

MAT 2263 Calculus III – 3 hours (Fall)

This course examines curves and surfaces in three dimensions, derivatives and integrals of functions of more than one variable, and vector calculus. Prerequisite: MAT 2255 or its equivalent with a minimum grade of C.

MAT 2393 Geometry, Data, and Probability for Elementary/Middle School Teachers – 3 hours (Spring)

This course develops the concepts of probability and statistics. Analytic, synthetic, and transformation geometry are investigated. Open only to students preparing to teach in the elementary or middle school.

MAT 295(1-4) Special Topics in Mathematics – 1-4 hours

Selected mathematics topics of special interest.

MAT/CIS 3221 Mentorship in Computing and Mathematics – 1 hour (Fall, Spring)

This course develops leaders in the returning students who mentor and promote achievement in first-year students. Prerequisite: 3.0 GPA and 24 hours completed at SBU.

MAT/PHY 3263. Mathematics for Science & Engineering I - 3 hours (Spring)

A course in mathematical methods essential for the physical sciences and engineering including infinite series, complex variables, and differential equations. Three lectures per week. Prerequisites: MAT 2263 and PHY 2224/PHY 2221 or concurrent enrollment.

MAT 3313 Abstract Algebra – 3 hours (Spring, even years)

An introduction to abstract algebraic systems and use of properties of groups, rings, integral domains and fields to describe and develop certain characteristics of natural numbers, integers, rational, real and complex numbers. Prerequisite: MAT 1195 and MAT 3332.

MAT 3323 Linear Algebra – 3 hours (Fall)

A study of systems of linear equations, matrices, determinants, vector products, vector spaces, linear transformations and quadratic forms. Prerequisite: MAT 1193 or 1195.

MAT 3332 Symbolic Logic and Set Theory – 2 hours (Spring)

This course is an introduction to symbolic statements, truth tables, quantifiers, inference and implication, special sets of numbers, set operations, correspondences, cardinal numbers, Boolean algebra, and the logical structure of mathematical arguments. Prerequisite: Must have met mathematics general education requirement.

MAT 3343 Mathematical Statistics – 3 hours (Fall)

This course is a Calculus-based investigation of the concepts of probability and statistics including sample spaces, methods of enumeration, discrete and continuous functions or random variables and their distributions, conditional probability, Chebyshev inequalities, central limit theorem, regression and correlation, and sampling and hypothesis testing. Prerequisite: MAT 1195 or BUS/MAT 1193.

MAT 3353 Integrated Mathematics – 3 hours (Spring, even years, Winterfest, odd years)

This course will enable students seeking certification in middle or secondary school teaching to analyze mathematics curriculum from an integrated approach. The course will strengthen the students' level of mathematical knowledge, while broadening their structure of this knowledge in a way that is necessary for teachers. The course is recommended for students seeking certification in middle school or secondary school mathematics teaching. All students taking this course will be teaching a component of the course and will be evaluated on their teaching. Prerequisite: Must have met mathematics general education requirement.

MAT 3363 Differential Equations – 3 hours (Spring)

This course studies explicit and power series solutions of certain types of linear differential equations, boundary value problems, solving differential equations using applications of Laplace Transforms, and

various real-world applications of differential equations. Prerequisite: MAT 2263 or concurrent enrollment in MAT 2263.

MAT 3372 Math Technologies – 2 hours (Fall, even years, Winterfest, even years)

What is math technology? How has it and how should it affect how and what we teach in Mathematics? How will it affect your future – be it mathematics, physical science, social science, or business using mathematics? We will consider and write about these and other questions via hands on experience with various math technologies. This course will have a lab component. Topics developed will be tailored to individual students' backgrounds and interests. Prerequisites: MAT 1193 or 1195.

MAT 3382 History of Mathematics – 2 hours (Fall, odd years)

A survey of the significant developments in mathematics and contributions of great mathematicians from the Greeks (Thales) to present day. The course focuses mainly on mathematics developed since the invention of analytic geometry and the calculus. Prerequisite: MAT 1195.

MAT 3391 Preparing For Secondary Mathematics Teacher Certification Exam – 1 hour (Spring)

This seminar course is designed to help students seeking certification in secondary school mathematics prepare for the current secondary mathematics teacher certification exam. The course will be focused on the content of this exam and test taking strategies.

MAT 3473 Analysis of Variance – 3 hours (Spring, odd years)

This course investigates the analysis of variance and related modeling techniques for cases with fixed, random, and mixed effects. These modeling techniques included one-way, two-way, and three-way ANOVA with and without interaction. Prerequisite: BEH 3243 or BUS 2023 or MAT 3343.

MAT/PHY 4263. Mathematics for Science & Engineering II - 3 hours (On demand)

A continuation of PHY/MAT 3263, this course includes special functions, groups and representations, partial differential equations, and other topics essential to engineering and the physical sciences. Three lectures each week. Prerequisite: PHY/MAT 3263.

MAT 4343 Mathematical Statistics II – 3 hours (Spring, even years)

This course is a continuation of the concepts introduced in Mathematical Statistics (MAT 3343). In particular, the concept of modeling with regression analysis will be explored further. The course includes an introduction to both simple linear and multiple regression models with a brief exploration of quadratic models. Modeling with both quantitative and qualitative variables will be studied. There will be a brief introduction to stepwise regression and variable screening methods. Prerequisite: BEH 3243 or BUS 2023 or MAT 3343.

MAT/CIS 4433 Numerical Methods – 3 hours (Fall, even years)

A study of mathematical concepts in a computing context. Topics include numerical integration, systems of equations, root-finding, curve-fitting, and differential equations. Emphasis will be placed on computer-based solutions with implications for programming, algorithm complexity, data representation and approximation, and error measurement. Lab fee \$12. Prerequisite: CIS 1033 and MAT 2263.

MAT 4483 Contemporary Geometry – 3 hours (Spring, odd years)

An axiomatic development of geometry that includes both the classical material of Euclidean geometry and the structure of the alternate axiomatic system of hyperbolic geometry. Prerequisites: MAT 1195 and MAT 3332.

MAT 4663 Advanced Calculus – 3 hours (Fall)

Advanced Calculus is a study of the basic concepts in analysis. These include concepts such as continuity, convergence of sequences and series of numbers, convergence of sequence and series of functions, differentiation, and integration. A more complete understanding of these concepts than is achieved in the Calculus sequence is necessary for all mathematics majors and thus this course is a core course of the math major and a type of capstone course. Prerequisites: MAT 2263 and MAT 3332.

MAT 495(1-4) Special Topics in Mathematics – 1-4 hours (On demand)

Selected topics of special interest in mathematics. May be repeated.

MAT 499(1-3) Independent Studies – 1-3 hours (On demand)

Selected mathematics topics of special interest. Students initiate a proposal of study as detailed elsewhere in the catalog.

Methods of Teaching Mathematics in the Middle and Secondary Schools.

(See EDU 4513).

Mathematics Through the Eyes of Faith

(See SCF 3422).

Medical Technology

(Courses offered at Cox School of Medical Technology)

MTC 401 Clinical Biochemistry – 10 hours (On demand)

Theory and laboratory study of analytical biochemistry, incorporating both routine and special chemical procedures.

MTC 402 Clinical Microscopy – 2 hours (On demand)

Principles and techniques of the physical, chemical and microscopic examination of urine and other body fluids as related to the disease process.

MTC 403 Clinical Hematology & Coagulation – 7 hours (On demand)

Study of blood cell derivation, maturation and function. Principles of hemostasis and coagulation. Methodology used in routine and special studies and the interpretation and correlation with disease states.

MTC 404 Diagnostic Immunology – 4 hours (On demand)

The science of immunity including antibody development, principles of the antigen-antibody interactions, and techniques of serological testing for various disease states.

MTC 405 Clinical Microbiology – 7 hours (On demand)

The theory and laboratory study of pathogenic bacteria, viruses, rickettsiae, fungi, and parasites. Includes morphology, physiology, taxonomy, and medical significance.

MTC 406 Immunohematology – 4 hours (On demand)

A study of the blood group systems and the immune response. Methods of cross-matching, antibody screening, and phenotyping. Administrative safeguards and legal aspects of blood banking.

MTC 407 Special Topics in Medical Technology – 1 hour (On demand)

Instruction will include lecture and/or clinical practice in the areas of in-service education, management and supervision, research and development, and the principles and techniques of the instructional process

Military Science

MIL 101(1-2) Introduction to Military Science – 1-2 hours

History, organization and mission of the U.S. Army and the Reserve Officer Training Corps (ROTC), rappelling techniques, basic rifle familiarization, map reading and understanding the role of the U.S. Army in today's world.

MIL 102(1-2) Introduction to Basic Military Skills – 1-2 hours

Rifle marksmanship, advanced rappelling techniques, military radio and telephone communications, military leadership and basic military skills.

MIL 1161 Leadership Fitness – 1 hour

Development of individual fitness and acquisition of the skills necessary to lead group fitness training. (May be repeated)

MIL 211(1-2) Basic Military Skills and Techniques – 1-2 hours

Introduction to techniques of survival in various situations and climates, rappelling and pistol marksmanship.

MIL 212(1-2) Military Fundamentals Practicum – 1-2 hours

The class is designed for the military science students who desire accelerated instruction on rifle marksmanship, rappelling, communications, map reading (to include the compass) and patrolling. The student will be required to wear a military uniform and meet Army appearance standards.

MIL 225(1-5) Basic Military Science Practicum – 1-5 hours

A 6-week course conducted at Fort Knox, KY. The training is rugged and intensive with emphasis placed on leadership application, practical work and physical conditioning. Training will be conducted six days a week out-of-doors and requires active participation by all students.

MIL 3013 Military Leadership and Operations – 3 hours

Introduction to small unit tactics; principles of military leadership, to include theory, responsibilities, techniques and practice; branches of the U.S. Army, oral presentation techniques and practice. One field trip is required. This course may not be taken pass/not pass.

MIL 3023 Military Skills Building – 3 hours

Small unit tactics; applied military leadership (builds on knowledge gained in MIL 3013) with special emphasis on the junior leader's duties and responsibilities. Two field trips are required. This course may not be taken pass/not pass.

MIL/HIS 3153 American Military History – 3 hours (Spring, odd years)

American Military History from the colonial period to the present; its relation to the national development in war and peace.

MIL 3255 Advance Military Science Practicum – 3 hours

The 6-week course is conducted at Fort Lewis, Washington. The instruction, training and evaluation focuses on the professional development issues required to become an Army Officer. The primary focus is on evaluating the student's leadership potential through this mentally and physically demanding camp. The training and evaluation are conducted seven days a week for six weeks and require active participation by all students. The student is placed in leadership positions which require him/her to lead up to 120 fellow students for extended periods of time.

MIL 4113 Military Qualification Skills For the Advanced Cadet – 3 hours

Ethics and professionalism of the military officer; Army command staff functions; oral presentation techniques and practice; military leadership at junior officer level; world change and military obligations. One field trip is required. This course may not be taken pass/not pass.

MIL 4123 Transition from Cadet to Lieutenant – 3 hours

Military justice system; army supply and logistics procedures and responsibilities; officer management system; obligations and responsibilities of a military officer; military leadership at junior officer level. Two field trips are required. This course may not be taken pass/not pass.

MIL 496(1-2) Readings/Research in Military Science – 1-2 hours

Planned readings and research on subjects in or related to Military Science. May be repeated for a total of 3 hours. This course may not be taken pass/not pass.

Music

MUS 0100 Recital Attendance – (Fall, Spring)

Laboratory in music literature, listening and performance. Attendance at a designated number of division-sponsored or approved concerts. Music majors must complete six semesters of this course. Enrollment for pass-fail only.

MUS/CHR 023(0-1) Worship Lab – 0-1 hour (Fall, Spring)

Laboratory in worship planning and worship leadership. Attendance at a designated number of division-sponsored learning and discussion events, plus assignment to worship-leading teams for rehearsal and participation in worship-leading opportunities. Lab fee \$20.

MUS 1101 Basic Class Piano I – 1 hour (Fall, Spring)

Class instruction in piano designed for non-music students with no previous experience or less than one year. May not be taken by music majors or minors. Two hour lessons per week. No jury required. Lab fee \$20.

MUS 1111 Basic Class Piano II – 1 hour (Fall, Spring)

Continuation of MUS 1101 but may be taken by non-music students with one-three years previous study. Students with more than three years study should enroll in Applied Piano. Two one-hour lessons per week. No jury required. Prerequisite: MUS 1101 or permission of instructor. Lab fee \$20.

MUS 1121 Secondary Class Piano I – 1 hour (Fall)

Class instruction in piano for music majors and minors to develop functional ability in required secondary performance area. Required each semester until piano proficiency examination is passed. Two one-hour lessons per week. No jury required. Lab fee \$20.

MUS 1131 Secondary Class Piano II – 1 hour (Spring)

Continuation of MUS 1121. Prerequisite: MUS 1121 or permission of Coordinator of Applied Music. Lab fee \$20.

MUS 1141 Basic Class Voice – 1 hour (Fall, Spring)

Class instruction in voice designed to introduce beginning, non-music majors or minors. Lab fee \$20. No jury required.

MUS 1151 Basic Class Guitar I – 1 hour (Fall, Spring)

Class instruction which covers fundamental concepts and applied methods in guitar. Emphasis will be given to chording, beginning music theory, strumming and finger-picking styles of playing, song-writing

and performance techniques as they apply to the guitar. Completion of this course satisfies the guitar proficiency requirements for music education majors.

MUS 1161 Basic Class Guitar II – 1 hour (Fall, Spring)

Continuation of MUS 1151.

MUS 1171 Introduction to Church Music and Worship Leadership – 1 hour (Spring)

An introductory overview of the church music curriculum and careers in church music, with an emphasis on the qualifications and skills necessary for worship leaders.

MUS 1601 Music Fundamentals Lab – 1 hour (Fall, Spring)

An elementary study of the basic fundamentals of music reading including notation, rhythm, and chords. Some sightsinging, rhythm reading, and basic keyboard study will also be included. Concurrent enrollment in MUS 1613 or MUS 1623 is required.

MUS 1611 Sightsinging/Eartraining I – 1 hour (Fall)

Training in sightsinging and aural perception. Must be taken concurrently with MUS 1613. Music majors and minors; other with consent of division head. Lab fee \$20.

MUS 1613 Theory I – 3 hours (Fall)

An intensive study of theoretical concepts of music organization, including notation, melody, rhythm and harmony. Must be taken concurrently with MUS 1611; music majors and minors; others with consent of theory coordinator. Concurrent enrollment in MUS 1601 may be required based on theory placement examination. Lab Fee: \$20.

MUS 1621 Sightsinging/Eartraining II – 1 hour (Spring)

Continuation of MUS 1611. Must be taken concurrently with MUS 1623. Lab fee \$20. Prerequisite: MUS 1611 and MUS 1613 with a minimum grade of C.

MUS 1623 Theory II – 3 hours (Spring)

An historical/analytical study of theoretical concepts of music through the classical period. Must be taken concurrently with MUS 1621; Prerequisite: MUS 1611 and MUS 1613 with a minimum grade of C. Concurrent enrollment in MUS 1601 may be required based on the needs of the student. Lab Fee: \$20.

MUS 1633 Survey of Music Literature – 3 hours (Fall, Spring)

Survey of representative music literature from all historical periods and the development of analytical listening techniques. Music majors and minors.

MUS 1701 Introduction to Music Education – 1 hour (Spring)

Introductory overview of the music education curriculum and the profession of the music educator.

MUS 2121 Secondary Class Piano III – 1 hour (Fall)

Continuation of MUS 1131. Prerequisite: MUS 1131 or permission of Coordinator of Applied Music. Lab fee \$20.

MUS 2131 Secondary Class Piano IV – 1 hour (Spring)

Continuation of MUS 2121. Prerequisite: MUS 2121 or permission of Coordinator of Applied Music. Lab fee \$20.

MUS 2602 Survey of World Music – 2 hours (Spring)

A survey of non-Western music as a way to experience and understand different cultures through their unique musical systems. Prerequisite: (choose one) FAR 1003, FAR 1023, HON 1003 or MUS 1633.

MUS 2611 Sightsinging/Eartraining III – 1 hour (Fall)

Advanced work in sightsinging and aural perception, including the study of standard music literature. Must be taken concurrently with MUS 2613. Lab fee \$20. Prerequisite: MUS 1621 and MUS 1623 with a minimum grade of C.

MUS 2613 Theory III – 3 hours (Fall)

An historical/analytical/compositional study of the theoretical concepts of music of the common-practice period as well as a brief study of counterpoint, fugue and variation techniques. Must be taken concurrently with MUS 2611. Lab fee \$20. Prerequisite: MUS 1621 and MUS 1623 with a minimum grade of C.

MUS 2621 Sightsinging/Eartraining IV – 1 hour (Spring)

Continuation of MUS 2611. Must be taken concurrently with MUS 2623. Prerequisite: MUS 2611 and MUS 2613 with a minimum grade of C. Lab fee \$20.

MUS 2623 Theory IV – 3 hours (Spring)

An historical/analytical/compositional study of theoretical concepts of music from 1890 to the present. Must be taken concurrently with MUS 2621. Lab fee \$20. Prerequisite: MUS 2611 and MUS 2613 with a minimum grade of C.

MUS 2631 Sightsinging for the Stage – 1 hour (Fall, even years)

A continuation of MUS 1621 for students pursuing a minor in musical theatre. Further exploration of meter, rhythm patterns, intervals and keys through singing exercises at sight. Particular application to musical theatre song materials. Ensemble, partner and solo exercises will be used. Lab fee \$20.

MUS 2702 Basic Conducting – 2 hours (Fall)

Introduction to manual techniques of conducting, terminology for the conductor, mechanics of choral, band and orchestral scores. Prerequisites: MUS 1621 and 1623.

MUS 2711 Instrumental Fundamentals – 1 hour (Spring)

An elementary study of woodwind, brass, and percussion instruments with emphasis on tone production, fundamental performance techniques, and pedagogy. Lab fee \$25.

MUS/CHR 2712 Worship Leading for Small Groups – 2 hours (Spring, odd years)

To provide basic worship leading skills for ministerial students and others working with small churches and small groups. Attention given to motivating and directing congregational and small group singing, planning worship services and rudimentary techniques in leading choirs of limited skill. No credit for music majors and minors.

MUS 2721 String Fundamentals – 1 hour (Fall)

An elementary study of string instruments with an emphasis on tone production and fundamental performance techniques. Laboratory teaching experience. Two class meetings per week. Lab fee \$25.

MUS 2731 Woodwind Methods – 1 hour (Spring, even years)

An intensive study of woodwind instruments including a survey of solo, ensemble and instructional literature. Emphasis on the ability to play and teach. Laboratory teaching experience. Two class meetings per week. Lab fee \$35.

MUS 2741 Brass Methods – 1 hour (Fall, even years)

An intensive study of brass instruments including a survey of solo, ensemble and instructional literature. Emphasis on the ability to play and teach. Laboratory teaching experience. Two class meetings per week. Lab fee \$25.

MUS 2751 Percussion Methods – 1 hour (Spring, odd years)

An intensive study of percussion instruments including a survey of solo, ensemble and instructional literature. Emphasis on the ability to play and teach. Laboratory teaching experience. Two class meetings per week. Lab fee \$25.

MUS 2771 Vocal Diction I – 1 hour (Spring)

A basic study of the phonetic pronunciation of the Italian and English languages through the use of the International Phonetic Alphabet. Must be taken concurrently with MUS 1331 or 1332.

MUS 2781 Vocal Diction II – 1 hour (Spring)

A basic study of the phonetic pronunciation of the German and French languages through the use of the International Phonetic Alphabet. Prerequisite: MUS 2771.

MUS 2802 Piano Pedagogy – 2 hours (Fall, even years)

Discussion and analysis of suitable methods and materials of teaching at elementary and intermediate levels. Guidance in establishing and operating the private studio. Prerequisite: MUS 1311 or 1312.

MUS 295(1-4) Special Topics in Music – 1-4 hours (On sufficient demand)

Topics of special interest in music. May require the appropriate applied fee. Prerequisite: Consent of division head.

MUS 3602 Analysis of Music Structure – 2 hours (Fall, odd years)

Advanced study of analytical techniques applied to music from the 17th-20th centuries. Prerequisite: MUS 2611 and 2623.

MUS 3622 Orchestration – 2 hours (Fall, even years)

Study of the capabilities of band and orchestral instruments; analysis of scores; practical work in scoring for small and large instrumental combinations. Prerequisite or concurrent enrollment: MUS 2611 and 2623. Lab fee \$20.

MUS 3653 History of Western Music I – 3 hours (Fall)

Intensive study of the history of music and representative music literature before 1750. Prerequisite: MUS 1633 and MUS 2613 or permission of instructor.

MUS 3663 History of Western Music II – 3 hours (Spring)

Intensive study of the history of music and representative music literature since 1750. Prerequisites: MUS 2623 and MUS 3653.

MUS 3672 Organ Literature and Design – 2 hours (Spring, odd years)

A survey of organ literature and practical study of organ registration, design and pedagogy. Prerequisite: MUS 1321 or 1322.

MUS 3712 Choral Conducting – 2 hours (Spring)

Continued work toward mastery of the basic skills of conducting. Emphasis upon the development of choral rehearsal and performance techniques. Survey of stylistic characteristics of the five major periods of choral literature. Prerequisite: MUS 2702.

MUS 3722 Instrumental Conducting – 2 hours (Spring, even years)

Continued work toward mastery of the basic skills of conducting, including score study, score arranging, and baton technique. Emphasis upon development of band and orchestra rehearsal and performance techniques. Survey of stylistic characteristics of major periods of band literature. Prerequisite: MUS 2702.

MUS 3732 Church Music Literature and Materials – 2 hours (Fall, even years)

Survey and analytical study of sacred music literature including choral and instrumental music representing all periods of church music with emphasis on music relevant to the contemporary church. Prerequisite: MUS 1623 and 1633.

MUS 3742 Church Music Education – 2 hours (Spring, odd years)

A study of organizational techniques, methods and materials, unit and rehearsal plans and enlistment procedures for a church music program for children through grade six.

MUS/CHR 3752 Instrumental Ministry in the Church – 2 hours (Spring, even years)

A practical study of the use of instrumental music in the church, including all aspects of instruments in music ministry. Techniques and materials used by the church pianist and organist involving hymn playing, modulation, transposition, improvisation, and accompanying choirs and soloists. The use of band and orchestra instruments in varying combinations and the use of handbells in music ministry. Prerequisite: Two semesters of piano (or organ) or permission of instructor.

MUS/CHR 3783 Worship and Song in the Church – 3 hours (Fall)

A historical survey of the worship practice and congregational song of the major Christian denominations with an emphasis on planning worship for today's churches.

MUS 3802 Piano Literature – 2 hours (Fall, odd years)

A general survey of piano repertoire from 1650-Present. Prerequisite: Two semesters of piano or permission of instructor.

MUS 3812 Vocal Pedagogy – 2 hours (Spring, odd years)

An intensive study of vocal teaching techniques and vocal literature for use in private studio, voice class, music contest and worship. Laboratory teaching experience. Prerequisite: Four semesters of applied voice or consent of instructor.

MUS/EDU 3813 Elementary Music Education – 3 hours (Spring)

Study of administrative teaching techniques and survey of materials for teaching vocal and instrumental music in early childhood and elementary grades. Examination of musical concepts and skills appropriate at each age or learning level. Training in use of piano, recorder, autoharp and fretted instruments. Prerequisite: MUS 1621 and 1623; music majors and minors only. In order to enroll in EDU 3813 the student must have a 3.0 GPA in EDU coursework.

MUS 3853 Music Industry I – 3 hours (Fall, even years)

A study of issues affecting the music industry professional. An introduction to careers, public relations, self-promotion and music licensing organizations. Prerequisite: 64 hours completed or permission of instructor.

MUS 3863 Music Industry II – 3 hours (Fall, odd years)

An in-depth study of issues affecting the music industry professional. Aspects of concert promotion, contracts, licensing costs and the role of the music agent will be studied. Prerequisite: 64 hours completed or permission of instructor.

MUS 3923 Recording Techniques – 3 hours (Spring, odd years)

Survey of terminology, equipment, and basic techniques of sound reinforcement and recording, along with hands-on projects in recording and live performances. Lab fee \$35.

MUS/CHR 4101 Church Music Technology – 1 hour (Spring, even years)

An introductory overview of the technology available to church musicians. Prerequisite: CIS 1103 or 1033.

MUS/EDU 4573 Methods of Teaching Vocal Music in the Middle and Secondary Schools – 3 hours (Fall, odd years)

Study of philosophy of music education, administrative and teaching techniques and materials for teaching vocal music in the middle and secondary schools. Music majors and minors only. Prerequisites: MUS 1621 and 1623. In order to enroll in EDU 4573 the student must have a 3.0 GPA in EDU coursework.

MUS/EDU 4582 Methods of Teaching Instrumental Music in the Middle and Secondary Schools – 2 hours (Fall, even years)

Study of philosophy of music education, administrative and teaching techniques and materials for teaching instrumental music in middle and secondary schools. Emphasis will be placed on lesson plans and their implementation. Music majors and minors only. Prerequisites: MUS 1621 and 1623. In order to enroll in EDU 4582 the student must have a 3.0 GPA in EDU.

MUS 4622 Choral Arranging and Composition – 2 hours (Spring)

Original composition in idioms of the 20th century, including original pieces suitable for school and church. Emphasis on creative ideas and techniques for choral arranging. Lab fee \$20. Prerequisite: MUS 2621 and 2623.

MUS 4701 Supervised Teaching in Piano – 1 hour (Fall, Spring)

Practical piano teaching experience in a supervised laboratory situation. Prerequisite: MUS 2802.

MUS 4712 Choral Techniques – 2 hours (Fall, even years)

Building the needed understanding, listening skills and expectations for developing a choral ensemble in regard to the aspects which shape choral teaching and performance, which include: vocal pedagogy and choral tone, musicality and performance practice, text and diction, rhythmic vitality, tuning and intonation, and dynamics. Prerequisites: MUS 3712. Music major and minors only.

MUS 4722 Repertoire for Secondary Choral Music – 2 hours (Spring, even years)

A study of choral music appropriate for use in the secondary school and the criteria for its selection. Prerequisite: MUS 3712 or permission of instructor.

MUS 4732 Marching and Jazz Band Techniques – 2 hours (Fall, odd years)

Study of techniques in the organization, training and performance of marching and jazz bands in public schools. Techniques for music arranging and drill writing will be studied. Laboratory: required field trips to high school rehearsals, parades and contests.

MUS 4742 Repertoire for Secondary Instrumental Music – 2 hours (Spring, odd years)

A study of instrumental music appropriate for use in the secondary school and the criteria for its selection. Prerequisite: MUS 3722 or permission of instructor.

MUS/CHR 4743 Church Music Administration – 3 hours (Fall, odd years)

Study of the functional approach to the church music ministry including organization, administration, budget, calendar, scheduling, purchase and maintenance of equipment, rehearsal, performance, service planning, congregational activities and staff relations.

MUS 4752 Supervised Field Experience in Church Music – 2 hours (Fall, Spring)

On-the-job training under the supervision of a full-time minister. Includes observation and supervised work as director and/or accompanist. Course fee \$75. Prerequisite: MUS 3743 and 4743.

MUS 495(1-4) Intensive Studies in Music – 1-4 hours (On demand)

Topics of special interest in music. May require the appropriate applied fee. Prerequisite: Consent of division head.

MUS 4983 Internship in the Music Industry – 3 hours (On demand)

On-the-job training in a music industry agency, such as a recording studio, music store or music theater. Includes 160 hours of observation, instruction, supervised tasks and evaluation.

MUS 499(1-3) Independent Studies – 1-3 hours (Fall, Spring)

Advanced studies of specific topics arranged with division head.

ENSEMBLES:

Students enroll in ensemble according to academic classification prefix. (1) Freshman; (2) Sophomore; (3) Junior; (4) Senior. The major ensembles are: University Singers, SBU Chorale, University Band, Wind Symphony, and Orchestra.

MUS (1,2,3,4)001 University Singers – 1 hour (Fall, Spring)

Open to all students by audition. Study and performance of literature for the mixed choir. Three rehearsals per week. Concerts on campus and off-campus. Lab fee \$20.

MUS (1,2,3,4)011 SBU Chorale – 1 hour (Fall, Spring)

Open to all students by audition. Study and performance of advanced literature for the mixed choir. Four rehearsals per week. Concerts on campus and on tours. Lab fee \$20.

MUS (1,2,3,4)021 Wind Symphony – 1 hour (Fall, Spring)

Open to all students by audition. Study and performance of works for concert band (woodwinds, brass, percussion and string bass). Four rehearsals per week. Concerts on campus and on tours. Lab fee \$20.

MUS (1,2,3,4)031 Chamber Orchestra – 1 hour (Fall, Spring)

Open to all students by audition. Study and performance of works for string and full orchestra as well as for other combinations involving orchestra string instruments. Three rehearsals per week. Lab fee \$20.

MUS/THR (1,2,3,4)041 Opera Theatre – 1 hour (Fall, Spring)

Open to all students by audition. Study and performance of operatic or musical theater solos and ensembles. One major production per year. Lab fee \$10.

MUS (1,2,3,4)051 Jazz Ensemble – 1 hour (Fall, Spring)

Open to all students by audition. Study and performance of works for jazz ensemble. Two rehearsals per week. Concerts on campus and on tours. Lab fee \$10.

MUS (1,2,3,4)061 Brass Ensemble – 1 hour (Spring)

Open to all students by audition. Various quartets, quintets and choirs. Lab fee \$10.

MUS (1,2,3,4)071 Percussion Ensemble – 1 hour (Fall, Spring)

Open to all students by audition. Various chamber ensembles consisting of percussion instruments. Lab fee \$10.

MUS (1,2,3,4)081 Higher Ground – 1 hour (Fall, Spring)

Open to all students by audition. Small ensemble of vocalists and instrumentalists emphasizing

contemporary Christian music. Performance on campus and on tour in schools and churches. Vocalists must be enrolled in SBU Chorale or University Singers. Lab fee \$10.

MUS (1,2,3,4)091 University Band – 1 hour (Fall, Spring)

Open to all students and community members. One/two evening rehearsals per week. Concerts on campus in conjunction with the Wind Symphony. Lab fee \$20.

MUS 2111 Community Chorus – 1 hour (Fall, Spring)

Open to all students and community members. One/two evening rehearsals per week. Concerts on campus in conjunction with the University Singers. Lab fee \$20.

MUS (1,2,3,4)511 Chamber Singers – 1 hour (Fall, Spring)

Open to all students by audition. Vocal ensemble performing chamber literature from major stylistic periods including vocal jazz. Three rehearsals per week. Must be enrolled in SBU Chorale concurrently, or by instructor approval. Lab fee \$10.

MUS (1,2,3,4)521 Woodwind Ensemble – 1 hour (Fall, Spring)

Open to all students by audition. Various chamber ensembles consisting of one or more of the following: flutes, oboes, clarinets, saxophones and bassoons. Lab fee \$10.

MUS (1,2,3,4)531 String Ensemble – 1 hour (Fall, Spring)

Open to all students by audition. Chamber ensemble consisting of bowed string instruments. Lab fee \$10.

Non-Credit Options For Ensemble Enrollment

- MUS 2010 SBU Chorale – 0 credit hours (Fall, Spring) Lab fee \$20.
- MUS 2020 Wind Symphony – 0 credit hours (Fall, Spring) Lab fee \$20.
- MUS 2030 Chamber Orchestra – 0 credit hours (Fall, Spring) Lab fee \$20.
- MUS 2090 University Band – 0 credit hours (Fall, Spring) Lab fee \$20.
- MUS 2100 University Singers – 0 credit hours (Fall, Spring) Lab fee \$20.
- MUS 2110 Community Chorus – 0 credit hours (Fall, Spring) Lab fee \$20.
- MUS 2040 Opera Theatre – 0 credit hours (Fall, Spring) Lab fee \$10.
- MUS 2050 Jazz Ensemble – 0 credit hours (Fall, Spring) Lab fee \$10.
- MUS 2060 Brass Ensemble – 0 credit hours (Fall, Spring) Lab fee \$10.
- MUS 2070 Percussion Ensemble – 0 credit hours (Fall, Spring) Lab fee \$10.
- MUS 2080 Higher Ground – 0 credit hours (Fall, Spring) Lab fee \$10.
- MUS 2510 Chamber Singers – 0 credit hours (Fall, Spring) Lab fee \$10.
- MUS 2520 Woodwind Ensemble – 0 credit hours (Fall, Spring) Lab fee \$10.
- MUS 2530 String Ensemble – 0 credit hours (Fall, Spring) Lab fee \$10.

Private Applied Music (Fall, Spring)

Private instruction for music majors and minors and intermediate to advanced non-majors. Students should enroll in applied lessons according to the semester of study in the specific applied area (See applied music enrollment criteria). All applied music may be taken for 1 or 2 hours credit. Applied fee \$250 per credit hour per semester. Practice room fee \$30 per semester.

Enrollment in Applied Conducting presumes previous study in conducting as a prerequisite – this includes MUS 2702 Basic Conducting, along with either: MUS 3722 Instrumental Conducting; or MUS 3712 Choral Conducting and MUS 4712 Choral Techniques.

Enrollment in Applied Composition presumes previous study in music theory as a prerequisite – usually this includes substantial progress in the sequence of music theory courses.

Students who wish to participate in applied music study for no academic credit should enroll in MUS 2200 Applied Music – Applied music for 0 credit hours (1/2 hour lesson each week – applied fee \$250).

MUS 2200 Applied Music – 0 credit hours (Fall, Spring) Fee \$250.

Applied Music Enrollment Criteria

1000-level: First or second semester of study

2000-level Third or fourth semester of study

3000-level: Fifth or sixth semester of study

4000-level: Seventh or more semester of study

- (1,2,3,4)20(1,2) Applied Flute
- (1,2,3,4)21(1,2) Applied Oboe
- (1,2,3,4)22(1,2) Applied Clarinet
- (1,2,3,4)23(1,2) Applied Bassoon
- (1,2,3,4)24(1,2) Applied Saxophone
- (1,2,3,4)25(1,2) Applied French Horn
- 1,2,3,4)26(1,2) Applied Trumpet
- (1,2,3,4)27(1,2) Applied Trombone
- (1,2,3,4)28(1,2) Applied Euphonium
- (1,2,3,4)29(1,2) Applied Tuba
- (1,2,3,4)30(1,2) Applied Percussion
- (1,2,3,4)31(1,2) Applied Piano
- (1,2,3,4)32(1,2) Applied Organ
- (1,2,3,4)33(1,2) Applied Voice
- (1,2,3,4)34(1,2) Applied Violin
- (1,2,3,4)35(1,2) Applied Viola
- (1,2,3,4)36(1,2) Applied Cello
- (1,2,3,4)37(1,2) Applied Double Bass
- (1,2,3,4)40(1,2) Applied Guitar
- (1,2,3,4)41(1,2) Applied Harp
- 438(1,2) Applied Conducting
- 439(1,2) Applied Composition

Nursing

NRS 0031 Pathway to Success - 1 hour (On demand)

Contact hours: Hybrid. This course reinforces strategies to promote successful completion of the prelicensure bachelor of science in nursing (PLBSN) program. The learning activities are determined by the faculty to ensure students maintain content and clinical proficiency based on individually identified learning needs. This course is required if a student is unsuccessful in NRS 3117, NRS 3217, NRS 3317, NRS 4114, NRS 4554, or takes a leave of absence from the program.

NRS 3010 New Student Orientation – 0 hours (Spring)

This is a no credit course that outlines the learning management system, technological systems, student resources, and institutional processes. This course is designed to familiarize students with the college's academic expectations, available student support services, and institutional processes during the first semester to promote student success in the nursing program. All students are required to register and participate in the orientation course. Course Fee: \$175.

NRS/NUR/HSC 3043 Health Care Missions – 3 hours (On demand)

This course is for health care students to plan, prepare, and experience health care delivery in an identified area of need. Mission trips must be an approved college/university mission trip with health care experiences.

NRS 3117 Fundamentals of Nursing Practice – 7 hours (Spring)

Contact hours: 60 classroom, 135 clinical. This course introduces fundamentals of nursing practice including the role of the professional nurse, communication, safe patient care, and holistic nursing assessment following evidence-based practice standards. Students will demonstrate knowledge, skills, and attitudes necessary for safe nursing care using evidence-based practice. Skills are taught in the clinical lab and then applied in patient care settings. Prerequisites: MAT 1243, CHE 1003/CHE 1001, BIO 2204, UNI 1111, PSY 1013, BIO 3304, BIO 2243, UNI 1121, BIO 2213, CIS 1103.

NRS 3217 Medical Surgical I: Adult and Elderly Care – 7 hours (Fall)

Contact hours: 60 classroom, 135 clinical. This course builds on the knowledge from fundamentals of nursing practice NRS 3117 with the introduction of quality improvement. Classroom content includes an emphasis on adult and elderly patients, basic medical/surgical health alterations, teamwork, and collaboration. Clinical experiences are designed to complement didactic content. Students will demonstrate knowledge, skills, and attitudes necessary for safe nursing care using evidence-based practice. Students are expected to increase in skills proficiency and prioritize the delivery of safe, quality nursing care. Prerequisites: NRS 3117.

NRS 3233 Pharmacology for Nursing Practice – 3 hours (Fall)

Contact hours: 45 classroom. This course introduces the student to the principles of safe medication administration using clinical reasoning. Content will focus on drug classifications and prototypes, adverse effects, patient education, and nursing priorities related to medication administration for patients across the lifespan. Prerequisites: NRS 3117.

NRS 3317 Medical Surgical II: Complex Adult and Elderly Care – 7 hours (Spring)

Contact hours: 60 classroom, 135 clinical. This course builds on the knowledge from Medical Surgical Nursing I - NRS 3217. Classroom content includes an emphasis on adult and elderly patients, complex medical/surgical health alterations, neuropsychological, and mental health issues. Associated pharmacological therapies specific to this content will be integrated. Clinical experiences are designed to complement didactic content. Students will demonstrate knowledge, skills, and attitudes necessary for safe nursing care using evidence-based practice. Students are expected to demonstrate skills competency and use clinical reasoning to guide interventions, delegation, and collaboration to promote patient-centered, comprehensive nursing care. Prerequisites: NRS 3217.

NRS/NUR 3373. Professional Nursing Practice - 3 hours (Fall, Spring)

Contact hours: Online Instruction – 8 weeks. This course examines professional concepts that guide nursing practice. The concepts build on prior education and experience to enhance professional growth. These concepts include evidence-based practice, ethics, professional organizations, political action, health care economics, and future trends in health care.

NRS/NUR 3383. Gerontological Nursing - 3 hours (Fall, Winterfest, Spring)

Contact hours: Online Instruction – 8 weeks. This course addresses relevant topics directed at optimum nursing interventions of older adults. Students will examine the holistic effects of aging as well as issues specific to the older adult.

NRS/NUR/HSC 3453 Spirituality in Health Care – 3 hours (Spring)

Contact hours: Online Instruction – 8 weeks. This course explores personal Christian spiritual development, theory, and diverse models of spirituality emphasizing their impact on health care settings. Spiritual practices and the responsibilities and issues of spiritual care are examined. Christian discipleship and a Christian theology are discussed as they apply to professional practice in a secular environment.

NRS/NUR/HSC 3563 Health Care Informatics – 3 hours (Spring)

Contact hours: Online Instruction – 8 weeks. This course focuses on the investigation of computer technology and information science to identify, gather, process and manage information. An understanding of information and technology theory, computer and decision-making systems, data management and electronic information retrieval will be presented with relevance to patient care, health care management and health care research. Prerequisites: NRS 3217.

NRS/NUR/HSC 4013 Health Care in Culturally Diverse Populations – 3 hours (Fall)

Contact hours: Online Instruction – 8 weeks. This course explores current issues in healthcare pertaining to culturally diverse populations from a Christian perspective. Students will examine the theoretical, social, economic, political, environmental, and religious factors that affect health in different cultural groups. This course identifies therapeutic healthcare practices for culturally diverse patients, families, and communities. Prerequisite: NRS 3317.

NRS/NUR/HSC 4023 Health Care Finance – 3 credit hours (On demand)

Contact hours: Online Instruction – 8 weeks. This course examines financial principles, techniques, vocabulary, and procedures used to manage health care budgets and operations. Students will learn how to assess the health care financial environment, seek appropriate data, analyze information, and apply the results to the management of daily operations, using a Christian approach to fiscal responsibilities. ASN, BSN or RN-BSN course elective.

NRS 4114 Maternal Child & Family Health – 4 hours (Fall)

Contact Hours: 30 classroom, 90 clinical. This course introduces the student to knowledge and evidence based practices necessary for the delivery of safe professional nursing care to childbearing and childrearing families from diverse populations. Associated pharmacological therapies specific to this content will be integrated. Clinical experiences are designed to complement the didactic content. Students will demonstrate knowledge, skills, and attitudes necessary for safe nursing care using evidence-based practice. Clinical application includes experiences in obstetrical care, labor and delivery, and pediatrics. Prerequisites: NRS 3317

NRS/NUR/HSC 4333 Research and Evidence Based Practice – 3 hours (Fall)

Contact hours: Online Instruction – 8 weeks. This course introduces students to the elementary components of the research process and the application of research to professional practice including the retrieval of relevant literature and critical appraisal. An emphasis is placed on the combined use of literature, clinical judgment, interprofessional perspectives, and patient preferences to guide practice decisions. Legal and ethical conduct for health care professionals involved in research and quality improvement involving diverse populations are examined. The role of theory in the research process with contribution to the development of health care knowledge is explored. Prerequisites: NRS 3317.

NRS/NUR 4404 Community Health – 4 hours (Fall)

Contact hours: 45 clinical. This course focuses on the health of the community, including the holistic care of populations across the lifespan. Practice experiences are designed to complement the didactic content. Students will demonstrate knowledge, skills, and attitudes necessary for safe nursing care using evidence-based practice. Comprehensive health promotion, health maintenance and disease prevention are emphasized and include the historical, economic, social, cultural, and political influences of population health. Prerequisite: NRS 3317.

NRS 4413 Advanced Health Assessment 3 hours (Spring)

Contact hours: Online Instruction – 8 weeks. This course prepares students with the knowledge and skills to perform nursing assessments including the health history, review of systems, and advanced physical assessments in diverse patients throughout the lifespan. Students will perform focused, psychosocial, and comprehensive physical examinations enhanced through at home practice and video-based assessments. Pre-requisite: NRS 4114.

NRS/NUR/HSC 4434 Administration & Leadership – 4 hours (Spring)

Contact hours: Online Instruction – 8 weeks. This course prepares students to provide high quality patient care exploring principles of organizational and systems leadership, including quality improvement, and safety through practice experiences. The course incorporates knowledge and communication strategies within interprofessional teams, care coordination, delegation, and developing conflict resolution strategies to be effective leaders and administrators in a complex and dynamic health care setting. Management theories and concepts are emphasized. Professional issues related to work-life balance, healthy work environments, and resource assistance in building a nursing career are also considered. Prerequisite: NRS 4114.

NRS 4501 NCLEX Review – 1 hour (Spring)

Contact hours: Hybrid. This course will focus on preparing and evaluating student readiness for the NCLEX-RN® licensure examination through intensive topic and course-specific practice examinations integrated from an online, standardized assessment product. Co-requisites: NRS 4554. Prerequisites: NRS 4114.

NRS 4554 Medical Surgical III-Transition to Practice - 4 hours (Spring)

Contact hours: 15 classroom, 135 clinical. This course explores principles of nursing management as well as specialized care of patients with critical and emergent health conditions. Associated pharmacological therapies specific to this content will be integrated. Clinical experiences are designed to complement the didactic content and include a preceptor-guided management experience to prepare students for entry into professional practice. Pre-requisite: NRS 4114. Co-requisite: NRS 4501.

NUR 0011 Student Success Academy – 1 hour (hybrid)

This course introduces study strategies available to students to promote the successful completion of a program within the nursing and health sciences division. The clinical experiences will be determined by the faculty to ensure the student maintains competency. Clinical experiences are designed to complement the individual student based on individual needs and semester enrolled. This course is required if a student is unsuccessful in any of the NUR 1000/2000 level courses except (NUR 1011, NUR 1021, or NUR 2031). Professional Fee: \$100.

NUR 1010 New Student Orientation – 0 hours (Fall, Spring, Summer)

This is a no credit course that outlines the learning management system, technological systems, student resources, and institutional processes. This course is designed to familiarize students with the college's academic expectations, available student support services, and institutional processes during the first

semester to promote student success in the nursing program. All students are required to register and participate in the orientation course. Fees for this course will pay for program resources in the ASN program. Resource Assessment Fee: \$300.

NUR 1011 Pharmacology for Nursing I – 1 hour (Didactic only) (Fall, Winterfest, Spring, Summer)

Contact hours: 15 Classroom. The basic principles of pharmacokinetics will be introduced and the nurse's role in safe medication administration will be reinforced. Medications that promote health and prevent illness and disease across the lifespan will be emphasized. Prerequisites: CHE 1003/CHE 1001 OR CHE 1103/CHE 1101, BIO 2204, BIO 3304, BIO 2213. This course may not be taken concurrently with the other Pharmacology courses (NUR 1021 or NUR 2031). Professional Fee: \$100.

NUR/HSC 1013 Medical Terminology – 3 hours. (On demand)

This course focuses on the basic principles of medical terminology and application to the day-to-day work of allied health personnel. This course is an elective for the nursing programs.

NUR 1018 Foundations of Nursing Practice Across the Lifespan – 8 hours 5 hours didactic, 3 hours clinical (Fall, Spring)

Contact hours: 75 Classroom, 135 Clinical. Emphasizes health promotion, including self-health and patient health practices. Students build an understanding of concepts foundational to the role of the professional nurse with an emphasis on assessment of healthy patients and at-risk patients across the lifespan. Knowledge of growth and development will be used to develop a plan of prevention for at-risk patients across the lifespan. Clinical experiences allow students the opportunity to apply essential nursing knowledge, skills, and attitudes to provide safe patient-centered care. Prerequisites: CHE 1003/CHE 1001, BIO 2204, BIO 3304, BIO 2213. Professional Fee: \$800.

NUR 1021 Pharmacology for Nursing II – 1 hour (didactic only) (Fall, Winterfest, Spring, Summer)

Contact hours: 15 Classroom. Previously learned pharmacological content will be reinforced and expanded upon. Understanding the nurses' role in medication administration for patients with physiologic and psychosocial chronic and sub-acute conditions across the lifespan will be emphasized. Prerequisites: NUR 1018, NUR 1011. This course may not be taken concurrently with the other Pharmacology courses (NUR 1011 or NUR 2031). Professional Fee: \$100.

NUR 1028 Patient Centered Care - 8 hours (4 hours didactic, 4 hours clinical)

Contact hours: 60 Classroom, 180 Clinical. Previously learned content will be reinforced and expanded upon. Based on knowledge of the comprehensive assessment of patients across the lifespan, concepts related to chronic and sub-acute physiologic conditions will be introduced. Students will prioritize care of patients with chronic and sub-acute physiologic and psychosocial conditions. Varied clinical experiences will allow the students opportunity to apply essential nursing knowledge, skills, and attitudes to provide safe patient-centered care. Prerequisites: NUR 1018, NUR 1011. Professional Fee: \$800.

NUR 1104 Paramedic/Advanced Placement Bridge – 4 hours (2 hours didactic, 2 hours clinical) (Summer)

Contact hours: 30 classroom, 90 clinical. This course introduces paramedics to professional nursing practice ranging from basic concepts and theories to care for the medical and surgical patients as in the first and second semester nursing courses. Technical skills and pharmacological interventions will be reviewed in the learning resource center, in the classroom, and with guided self-study. Clinical experiences provide opportunities to apply learned classroom knowledge. Sub-concepts of nursing

including caring, communication, client education and accountability will be discussed. Prerequisites: BIO 2204, BIO 2213, BIO 3304, CHE 1003/CHE 1001, and current Missouri paramedic licensure. Advanced placement into third semester nursing courses is granted upon successful completion of this course, with 14 nursing hours being waived for previous paramedic education. Professional Fee: \$400.

NUR 2003 LPN Bridge – 3 hours (2 hours didactic, 1 hour clinical) (Summer)

Contact hours: 30 classroom/independent study, 45 clinical. This course introduces LPN's to professional nursing practice ranging from basic concepts and theories to care of the medical and surgical patients as found in the first and second semester courses. Technical skills and pharmacological interventions are reviewed in the learning resource center, in the classroom and with guided self-study. Clinical experiences provide opportunities to apply learned classroom knowledge. Sub-concepts of nursing including caring, communication, client education and accountability will be discussed. Prerequisites: BIO 2204, BIO 3304, CHE 1003/CHE 1001, and current LPN Missouri License. Advanced placement into third semester nursing courses is granted upon successful completion of this course with 15 hours of nursing credits being waived for previous LPN education. Professional Fee: \$300.

NUR 2031 Pharmacology for Nursing III – 1 hour (didactic only) (Fall, Winterfest, Spring, Summer)

Contact hours: 15 Classroom. Previously learned pharmacological content will be reinforced and expanded upon. Understanding the nurses' role in medication administration for patients with child-bearing and complex multi-system health conditions across the lifespan will be emphasized. Prerequisites: NUR 1028, NUR 1021. This course may not be taken concurrently with the other Pharmacology courses (NUR 1011 or NUR 1021). Professional Fee: \$100.

NUR 2038 Advanced Patient Centered Care – 8 hours (4 hours didactic, 4 hours clinical) (Fall, Spring)

Contact hours: 60 Classroom, 180 Clinical. Previously learned content will be reinforced and expanded upon. Students will focus on patient-centered evidence-based care across the lifespan with emphasis on the child-bearing experience and care of patients with multi-system health conditions. Varied clinical experiences will allow the students opportunities to apply essential nursing knowledge, skills, and attitudes to provide safe patient-centered care. Prerequisites: NUR 1028, NUR 1021. Professional Fee: \$800.

NUR 2048 Nursing Role Integration – 8 hours (3 hours didactic, 5 hours clinical) (Fall, Spring)

Contact hours: 45 Classroom, 225 Clinical. Previously learned content will be reinforced and expanded upon. Students will focus on patient-centered evidence-based care across the lifespan with emphasis on patients with emergent health conditions, triage, and disaster/mass casualty planning. This course will focus on the application of advanced concepts and skills central to professional nursing with an emphasis on the nursing domains of leadership, management of care, professionalism and servant leadership. Varied clinical experiences will allow the students opportunities to apply essential nursing knowledge, skills, and attitudes to provide safe patient-centered care. A preceptor experience is included in the course with 120 contact hours of clinical to allow the student to safely transition into the role of the professional nurse. Prerequisites: NUR 2038, NUR 2031. Professional Fee: \$800.

NUR 2052 NCLEX Preparation – (2 hours) (Fall, Winterfest, Spring, Summer)

Contact Hours: 30 hours didactic. This course is designed to prepare students for the NCLEX-RN® licensure exam. NCLEX Preparation Transition to Practice is a senior level course designed to assist students in assimilating core nursing content as they prepare to sit for the NCLEX®-RN licensure exam

and enter practice. It promotes student success by providing opportunities to improve and develop study skills through guided intense preparation and interactive critical thinking activities. The course builds on the student's understanding of the core content presented in an NCLEX review program. The course aids the student in enhancing their critical reasoning and communication skills based on best practices. Prerequisites: NUR 2038, NUR 2031. Professional Fee: \$200.

NUR 3010 New Student Orientation – 0 hours (Fall, Winterfest, Spring, Summer)

This is a no credit course that outlines the learning management system, technological systems, student resources, and institutional processes. This course is designed to familiarize students with the college's academic expectations, available student support services, and institutional processes during the first semester to promote student success in the nursing program. All students are required to register and participate in the orientation course.

NUR/HSC 3013 Organization and Delivery of Health Care – 3 hours (On demand)

This course provides an overview of health care delivery systems, examining such influencing forces as history, values and resources. Considers the role of reimbursement methods, technology, personnel and public policy in health care delivery. Explores the structures, processes, outcomes and challenges of the U.S. health care system. ASN or BSN course elective.

NUR/NRS/HSC 3043 Health Care Missions– 3 hours (On demand)

This course is for health care students to plan, prepare, and experience health care delivery in an identified area of need through a college/university mission trip.

NUR/HSC 3083 Clinical Genetics – 3 hours (On demand)

This course focuses on the fundamentals of genetics. The course is designed to give the student a basic understanding of genetic concepts so that this knowledge can be utilized to understand current and future genetic theories and therapeutics. ASN, BSHS, or BSN course elective.

NUR/NRS/HSC 3093 Survey of Human Anatomy and Physiology for Nursing and Health Sciences – 3 hours (Fall, Spring, Summer)

This course is designed as a refresher course for students who have outdated (>5 years) coursework in human anatomy and physiology. The course will be offered as an accelerated compendium of key concepts of human anatomy and physiology.

NUR 3203 Transition to the BSN Role – 3 hours (Fall, Spring, Summer)

This course introduces students to baccalaureate nursing standards. The core competencies of the RN-BSN program are introduced. These competencies include leadership principles, professional standards, research and evidence based practice, health information technology, health promotion, holistic assessment, and patient education. The fundamentals of successful learning in the online environment are introduced. Foci include assessing information and resources, professional communication, and the development and maintenance of a professional portfolio. The integration of Christian principles and liberal arts education to professional practice are explored.

NUR 3303 Health Assessment – 3 hours (Fall, Spring, on demand)

Curriculum lab fee: \$100. This course will emphasize the assessment phase of the nursing process, which will include expanded history, physical examination, and the skills to perform both for patients throughout the lifespan. Several different types of health assessment approaches will be covered including: holistic, focused, systems, and complete head-to-toe physical examinations. As well, the student will learn to define levels of patient care and to vary assessment techniques accordingly. Critical thinking and assessment skills will be enhanced through practice experiences. Current RN license

required. Critical thinking, assessment skills, and lab didactics will be evaluated through at home practice and online instruction.

NUR/NRS 3373 Professional Nursing Practice – 3 hours (Fall, Spring, Summer)

This course examines professional concepts that guide nursing practice. The concepts build on prior education and experience to enhance professional growth. These concepts include evidence-based practice, ethics, professional organizations, political action, health care economics, and future trends in health care.

NUR/NRS 3383 Gerontological Nursing – 3 hours (Fall, Winterfest, Spring)

This course addresses relevant topics directed at optimum nursing interventions of older adults. Students will examine the holistic effects of aging as well as issues specific to the older adult.

NUR/NRS/HSC 3453 Spirituality in Health Care – 3 hours (Fall, Winterfest, Spring)

This course explores personal Christian spiritual development, theory, and diverse models of spirituality emphasizing their impact on health care settings. Spiritual practices and the responsibilities and issues of spiritual care are examined. Christian discipleship and a Christian theology are discussed as they apply to professional practice in a secular environment.

NUR/NRS/HSC 3563 Health Care Informatics – 3 hours (Fall, Winterfest, Spring)

This course investigates concepts of computer technology and information science to identify, gather, process and manage information. This course focuses on an understanding of information and technology theory, computer and decision-making systems, data management and electronic information retrieval will be presented with relevance to patient care, health care management and health care research.

Prerequisite: CIS 1103.

NUR/NRS/HSC 4013 Health Care in Culturally Diverse Populations – 3 credit hours (Spring, Fall, On demand)

This course explores current issues in health care pertaining to culturally diverse populations from a Christian perspective. Students will examine the theoretical, social, economic, political, environmental, and religious factors that affect health in different cultural groups. This course identifies therapeutic healthcare practices for culturally diverse clients, families, and communities.

NUR/HSC 4023 Health Care Finance – 3 credit hours (On demand)

This course focuses on the health of the community, including the holistic care of populations across the lifespan. Practice experiences are designed to complement the didactic content. Students will demonstrate knowledge, skills, and attitudes necessary for safe nursing care using evidence-based practice. Comprehensive health promotion, health maintenance and disease prevention are emphasized and include historical, economic, social, cultural, and political influences of population health. ASN or BSN course elective.

NUR 4123/NUR 5123 Information Systems – 3 hours (Spring)

This course is an advanced course that combines knowledge of computer science, information systems, and nursing science to assist in the management and processing of nursing data, information, knowledge, and wisdom to support nursing practice and improve the delivery of nursing care. Students will learn how information systems design and selection, health care decision support, and clinical guidelines impact the delivery of health care. Students will explore a comprehensive approach to system selection, evaluation, and implementation, project management, and regulatory policies that impact health care.

Prerequisites: NUR 3563. Minimum GPA 3.0, Final year of RN-BSN courses.

NUR/NRS/HSC 4333 Research and Evidence Based Practice – 3 hours (Fall, Spring, On demand)

This course introduces students to the elementary components of the research process and the application of research to professional practice including the retrieval of relevant literature and critical appraisal. An emphasis is placed on the combined use of literature, clinical judgment, interprofessional perspectives, and patient preferences to guide practice decisions. Legal and ethical conduct for health care professionals involved in research and quality improvement involving diverse populations are examined. The role of theory in the research process with contribution to the development of health care knowledge is explored. ASR or BSHS course elective.

NUR/NRS 4404 Community Health – 4 hours (3 hours didactic, 1 hour practice experience) (Fall, Spring)

This course focuses on the health of the community, including the holistic care of populations across the lifespan. Practice experiences are designed to complement the didactic content. Students will demonstrate knowledge, skills, and attitudes necessary for safe nursing care using evidence-based practice. Comprehensive health promotion, health maintenance and disease prevention are emphasized and include the historical, economic, social, cultural, and political influences of population health. Current RN license for RN-BSN students only.

NUR/NRS/HSC 4434 Administration and Leadership – 4 hours (Fall, Spring, On demand)

This course prepares students to provide high quality patient care exploring principles of organizational and systems leadership, including quality improvement, and safety through practice experiences. The course incorporates knowledge and communication strategies within interprofessional teams, care coordination, delegation, and developing conflict resolution strategies to be effective leaders and administrators in a complex and dynamic health care setting. Management theories and concepts are emphasized. Professional issues related to work-life balance, healthy work environments, and resource assistance in building a nursing career are also considered. Curriculum lab fee: \$25.

NUR 4442 Capstone – 2 hour (Fall, Spring)

This course provides an exploration and synthesis of nursing knowledge learned throughout the RN-BSN program. Assignments include direct and indirect measurements of the RN-BSN student learning program level outcomes. Students will reflect on and evaluate their achievement of the RN-BSN student learning program level outcomes. Current RN license required. This class is limited to students who are enrolled in the final semester of senior year and intend to graduate at the end of this semester. Curriculum lab fee: \$175.

NUR/HSC 445(1-4) Special Topics in Nursing – 1-4 hours (On demand)

A study of topics from one or more fields chosen to meet students' special and/or advanced needs and interests. Potential topics include alternative modes of care delivery, nurse entrepreneurship, and nursing specialties such as staff development nursing and critical care nursing. ASN, BSHS, or BSN course elective.

NUR 4533/ NUR 5533 Statistics and Data Analysis for Nursing – 3 hours (On demand)

This course examines the analysis and application of statistical methods in the interpretation of biological data. The uses of descriptive and inferential statistics are included with an emphasis on advanced understanding of evidence-based research using chi-square, t-test, multiple regression, correlation, ANOVA/MANOVA, power analysis, factor analysis, and select non-parametric tests. The course focuses on the ability of the student to critically read and understand nursing research.

Prerequisite: Minimum GPA 3.0, Final year of RN-BSN courses, BEH 3243

NUR/HSC 499(1-3) Independent Studies – 1-3 hours (On demand)

Student-proposed topics in nursing practice, education or research which are approved by faculty and division head for independent study. ASN, ASR, BSHS, or BSN course elective.

Physical Science

PHS 1001 Introduction to Physical Science Lab – 1 hour (Winterfest, Spring, Summer)

A laboratory course accompanying PHS 1003. An integrated study of selected basic principles and concepts of chemistry and physics, including topics of current interest. Designed for the general student. One laboratory period per week. Lab fee \$48. Corequisite: PHS 1003. Prerequisite: MAT 1243 or satisfactory scores on the math portion of the enhanced ACT examination or the Quantitative Reasoning section of the CLT.

PHS 1003 Introduction to Physical Science – 3 hours (Winterfest, Spring, Summer)

An integrated study of selected basic principles and concepts of chemistry and physics, including topics of current interest. Designed for the general student. Three lectures each week: MAT 1243 or satisfactory scores on the math portion of the enhanced ACT examination or the Quantitative Reasoning section of the CLT.

PHS 1111 Introduction to Earth Science Lab – 1 hour (Fall)

A laboratory class to accompany PHS 1113. Basic principles of the earth in space, its atmosphere, the oceans and the development of land forms by geologic agents. Designed for the general student. One laboratory period per week. Lab fee \$48. Corequisite: PHS 1113.

PHS 1113 Introduction to Earth Science – 3 hours (Fall)

Basic principles of the earth in space, its atmosphere, the oceans and the development of land forms by geologic agents. Designed for the general student. Three lectures per week.

PHS 2005 Physical Science for Elementary and Middle School Teachers – 5 hours (Spring)

A study of the basics of astronomy, chemistry, geology, meteorology, and physics. Designed to emphasize discovery-based learning and inquiry-related instructional techniques by significantly utilizing enhanced classroom technology, hands-on laboratory experimentation, library research, and writing components. Four lectures, one laboratory period each week. Lab fee \$60. Prerequisites: ENG 1113 and MAT 1243. *Note:* Open only to elementary and middle school education majors.

PHS 2214 Meteorology – 4 hours (On demand)

A study of the earth's atmosphere and forces that influence weather phenomena including environmental trends. Three lectures, one laboratory period per week. Lab fee \$48. Prerequisites: MAT 1243 or satisfactory scores on the math portion of the enhanced ACT examination or the Quantitative Reasoning section of the CLT.

PHS 2311 Astronomy Lab – 1 hour (Fall, On Demand)

A laboratory class accompanying PHS 2313. A study of the historical and descriptive aspects of the solar system, stars, galaxies and current topics related to space science. One laboratory period per week. Lab fee \$48. Corequisite: PHS 2313. Prerequisites: MAT 1243 or satisfactory scores on the math portion of the enhanced ACT examination or the Quantitative Reasoning section of the CLT.

PHS 2313 Astronomy – 3 hours (Fall, On Demand)

A study of the historical and descriptive aspects of the solar system, stars, galaxies and current topics related to space science. Three lectures per week. Prerequisites: MAT 1243 or satisfactory scores on the math portion of the enhanced ACT examination or the Quantitative Reasoning section of the CLT.

PHS 295(1-5) Intensive Studies in the Physical Sciences – 1-5 hours (On demand)

Topics of special interest not available to the student in the traditional course offerings. May be repeated as topics change. Lab fee \$12-\$60 as necessary. Prerequisites: Determined by nature of topic studied.

PHS 3303 History and Philosophy of Science and Technology – 3 hours (Fall, even years)

A study of the historical and philosophical foundations of science and technology, accompanied by an examination of the logical and ethical ramifications of various past and present science and technology phenomena. Prerequisites: The general education life science requirement, the general education physical science requirement, and ENG 2213.

Physical Therapy

PTH 2523 Introduction to Physical Therapy – 45 clock hours (Spring, even years)

Introduces students to the multifaceted role of the physical therapy profession. Topics include the diversity and growth of healthcare and physical therapy, methodologies used in physical therapy education, and the concept of the health care team. Introduction to medical terminology will also be made, teaching the student to form medical terms, and define medical terms used in medical documents to be able to read and write these documents. Prerequisite: none.

Physics

PHY 1111 General Physics I Lab – 1 hour (Fall, Summer)

A laboratory class accompanying PHY 1114. A non-calculus physics course emphasizing the fundamental concepts of mechanics, heat and wave motion. Designed for pre-physical therapy, science education, biology, pre-medical, pre-veterinary, pre-optometry and pre-pharmacy majors. One laboratory period each week. Lab fee \$80. Co-requisite: PHY 1114. Prerequisites: MAT 1243 or satisfactory scores on the math portion of the enhanced ACT examination or the Quantitative Reasoning section of the CLT.

PHY 1114 General Physics I – 4 hours (Fall, Summer)

A non-calculus physics course emphasizing the fundamental concepts of mechanics, heat and wave motion. Designed for pre-physical therapy, science education, biology, pre-medical, pre-veterinary, pre-optometry and pre-pharmacy majors. Four lectures each week. Prerequisites: MAT 1243 or satisfactory scores on the math portion of the enhanced ACT examination or the Quantitative Reasoning section of the CLT.

PHY 1121 General Physics II Lab – 1 hour (Spring, Summer)

A laboratory class accompanying PHY 1124. A continuation of PHY 1114, emphasizing the fundamental concepts of electricity, magnetism, and optics; introduction to atomic physics. One laboratory period each week. Lab fee \$80. Co-requisite: PHY 1124. Prerequisite: PHY 1114 and PHY 1111.

PHY 1124 General Physics II – 4 hours (Spring, Summer)

A continuation of PHY 1114, emphasizing the fundamental concepts of electricity, magnetism, and optics; introduction to atomic physics. Four lectures each week. Prerequisite: PHY 1114.

PHY 2211 University Physics I Lab – 1 hour (Fall)

A laboratory course accompanying PHY 2214. A rigorous calculus-based physics course emphasizing mechanics, heat and wave motion. Designed for pre-engineers, computer science and physical science

majors. One laboratory period each week. Lab fee \$80. Co-requisite: PHY 2214. Prerequisite: MAT 1195 or concurrent enrollment. *Note:* A student cannot receive credit for both PHY 1114 and 2214.

PHY 2214 University Physics I – 4 hours (Fall)

A rigorous calculus-based physics course emphasizing mechanics, heat and wave motion. Designed for pre-engineers, computer science and physical science majors. Four lectures each week. Prerequisite: MAT 1195 or concurrent enrollment. *Note:* A student cannot receive credit for both PHY 1114 and 2214.

PHY 2221 University Physics II Lab – 1 hour (Spring)

A laboratory course accompanying PHY 2224. A continuation of PHY 2214, emphasizing electricity, magnetism and optics; introduction to atomic physics. One laboratory period each week. Lab fee \$80. Prerequisites: PHY 2214 and PHY 2211 and MAT 2255 or concurrent enrollment. *Note:* A student cannot receive credit for both PHY 1124 and 2224.

PHY 2224 University Physics II – 4 hours (Spring)

A continuation of PHY 2214, emphasizing electricity, magnetism and optics; introduction to atomic physics. Four lectures each week. Prerequisites: PHY 2214 and MAT 2255 or concurrent enrollment. *Note:* A student cannot receive credit for both PHY 1124 and 2224.

PHY 295(1-3) Special Topics in Physics – 1-3 hours (On demand)

A study of topics from one or more of the fields of physics chosen to meet student needs and interests. Lab fee \$30-\$90 as necessary. Prerequisite: PHY 1124/PHY 1121 or PHY 2224/PHY 2221.

PHY 2314. Introduction to Engineering - 4 hours (Fall)

A survey of the different fields engineering including many tools, both software and hardware used by engineers in common practice, and a review of the history, standards and ethics expected of practicing engineers. Lab fee \$60. Prerequisites: PHY 2224/PHY 2221 or PHY 1124/PHY 1121, CIS 1033 and MAT 1195.

PHY 3231 Statics Laboratory – 1 hour (Spring)

Companion laboratory for PHY 3233. Theory components of PHY 3233 are explored through associated experimentation. Topics included are Impulse-Momentum theorem, the gravitational constant, static equilibrium, catenaries, moment of inertia and physical pendula, along with advanced physics laboratory techniques. One laboratory period each week. Lab fee: \$60. Prerequisite: PHY 3233 or concurrent enrollment.

PHY 3233 Statics – 3 hours (Spring)

Application of the principles of vector mechanics to problems of equilibrium. Topics include resultants, equilibrium, trusses, centroids and moments of inertia. Designed for pre-engineers and physics minors. Three lectures each week. Prerequisites: PHY 2214/PHY 2211 and MAT 2255.

PHY/MAT 3263. Mathematics for Science & Engineering I - 3 hours (Spring)

A course in mathematical methods essential for the physical sciences and engineering including infinite series, complex variables, and differential equations. Three lectures per week. Prerequisites: MAT 2263 and PHY 2224/PHY 2221 or concurrent enrollment.

PHY 3321. Optics Laboratory - 1 hour (Fall even years)

Companion laboratory for PHY 3323. Theory components of PHY 3323 are explored through associated experimentation. Topics explored are lenses, mirrors, white-light sources, lasers, compound optics including prism and grating spectrometers and Michaelson interferometers, along with advanced physics laboratory techniques. One laboratory period each week. Lab fee: \$60. Prerequisite: PHY 3323 or concurrent enrollment.

PHY 3323. Optics - 3 hours (Fall even years)

A course emphasizing intermediate to advanced techniques in the study of geometrical optics, paraxial optics, Fraunhofer and Fresnel diffraction, interferometry, and other topics important to optics. Three lectures per week. Prerequisites: PHY 2224/PHY 2221 and PHY/MAT 3263.

PHY 3361 Modern Physics Laboratory – 1 hour (Spring even years)

Companion laboratory for PHY 3363. Theory components of PHY 3363 are explored through associated experimentation. Topics included are speed of light, the photoelectric effect, fundamental charge of an electron, Rydberg constant, crystal diffraction and radioactivity, along with advanced physics laboratory techniques. One laboratory period each week. Lab fee: \$60. Prerequisite: PHY 3363 or concurrent enrollment.

PHY 3363 Modern Physics I – 3 hours (Spring even years)

A study of the atomic view of matter and radiation, relativity and wave-particle duality; basic concepts of quantum physics. Three lectures each week. Prerequisites: PHY 2224/PHY 2221 or PHY 1124/PHY 1121 and MAT 1195.

PHY/CIS 3413 Machine Organization – 3 hours (Fall, Spring)

A survey of the electronic and mechanical components of a computer, including processing units, memory and I/O devices. Also includes an introduction to assembly language programming. Lab fee \$12. Prerequisites: CIS 1154 and MAT 1173.

PHY 3464. Analog & Digital Electronics - 4 hours (Spring, odd years)

A survey of the different circuits and analysis techniques used in analog and digital electronics. Physical circuits and computer simulations will be analyzed, constructed and tested. Lab fee: \$100. Prerequisites: PHY 2224/PHY 2221 and PHY/MAT 3263.

PHY 395(1-4) Special Topics in Physics – 1-4 hours (On demand)

A study of topics from one or more fields chosen to meet special student needs and interests. Topics could include dynamics, advanced mechanics, optics, thermodynamics, electromagnetic field theory, electronics and nuclear physics. Laboratory may be included. Lecture and laboratory periods variable. Lab fee \$30-\$120 if necessary. Prerequisites: Determined by nature and level of topics studied.

PHY 4233. Dynamics - 3 hours (Fall odd years)

Application of the principles of vector mechanics and calculus to problems in dynamics. Topics include mechanics of one and higher dimensions, motion of a system of particles, Lagrange's equations, theory of small vibrations, and other essential topics for pre-engineers and physics majors. Three lectures each week. Prerequisites: PHY 3233 and MAT 2263.

PHY/MAT 4263. Mathematics for Science & Engineering II - 3 hours (On demand)

A continuation of PHY/MAT 3263, this course includes special functions, groups and representations, partial differential equations, and other topics essential to engineering and the physical sciences. Three lectures each week. Prerequisite: PHY/MAT 3263.

PHY 4363. Modern Physics II - 3 hours (On demand)

A continuation of Modern Physics with a survey of quantum mechanics applied to atomic, molecular, solid state and nuclear physics. Three lectures each week. Prerequisites: PHY 3363 and PHY/MAT 3263.

PHY 4373. Quantum Mechanics - 3 hours (On demand)

A continuation of Modern Physics with an in-depth study of non-relativistic quantum mechanics. Solutions to the Schrodinger equation in one and three dimensions in multiple coordinate systems will be determined. Three lectures each week. Prerequisites: PHY 3363 and PHY/MAT 3263.

PHY 4411 Electricity and Magnetism Laboratory – 1 hour (Spring odd years)

Companion laboratory for PHY 4413. Theory components of PHY 4413 are explored through associated experimentation. Topics included are capacitance, Coulomb's Law, moving charged particles in electric and magnetic fields, Electron-Spin Resonance and the electrons charge to mass ratio, along with advanced physics laboratory techniques. One laboratory period each week. Lab fee: \$60. Prerequisite: PHY 4413 or concurrent enrollment.

PHY 4413 Electricity and Magnetism I – 3 hours (Spring odd years)

A course emphasizing vector calculus techniques in the study of electrostatics, electric fields, magnetostatics, magnetic fields and electrodynamics. Three lectures per week. Prerequisites: PHY 2224/PHY 2221 and PHY/MAT 3263.

PHY 4423. Electricity and Magnetism II - 3 hours (On demand)

A course emphasizing vector calculus techniques in the study electromagnetic radiation, electrodynamics, and special relativity. Three lectures per week. Prerequisites: PHY 4413.

Political Science

POL/HON 1013 Honors American Government and Politics – 3 hours (Fall, odd years)

This course surveys the origin, organization, and policy of United States government at the national, state, and local levels and encourages citizen participation and leadership in democratic processes beginning at the community level. Fulfills the Missouri statutory requirement. Prerequisite: A minimum composite ACT of 28, or an SAT of 1300, or a CLT score of 86.

POL 1111 Missouri Constitution – 1 hour (OLIS course only)

Organization and policy of Missouri State government as established by the Missouri State Constitution. Course promotes familiarity and understanding of Missouri government and its influence on the citizens of the state. This course is designed to meet the state statute requirement for the Missouri Constitution for students transferring with a course equivalent to POL 1113 from an institution outside of the state of Missouri. Course fee \$50 in lieu of OLIS course tuition and fees.

POL 1113 American Government and Politics – 3 hours (Fall, Spring)

Origin, organization and policy of United States government at the national, state and local levels. Encourages citizen participation and leadership in democratic processes beginning at the community level. Fulfills the Missouri statutory requirement.

POL 210(1-2) Pre-Law Seminar – 1-2 hours (Spring)

A career oriented course which identifies the major fields of law; also includes a study of the requirements for admission to law school with emphasis on the types of Law School Admission Test questions.

POL 2223 American State and Local Government – 3 hours (Spring)

Organization, administration and problems of state, county, municipal and other local governments in the United States. Prerequisite: POL/HON 1013 or POL 1113.

POL 295(2-3) Special Topics in Political Science – 2-3 hours

Prerequisite: POL/HON 1013 or POL 1113.

POL 3313 International Relations – 3 hours (Spring, odd years)

An in-depth study of relations among the nations of the world and the problems which arise with their constantly increasing interactions. Prerequisite: POL/HON 1013 or POL 1113.

POL 3323 Comparative Government – 3 hours (Fall, odd years)

A comparison of different kinds of political systems in the various regions of the world. The U.S. style of democracy will be compared with parliamentary systems, middle eastern and African authoritarianism, socialist systems, Asian democracies and Latin American corporatism. Prerequisite: POL/HON 1013 or POL 1113.

POL 4003 Public Administration – 3 hours (Fall, even years)

Focuses on examination of the core activities of government that are performed for the most part by highly trained experts and specialized organizations. Emphasis is placed on the development and implementation of public policy. Prerequisite: POL/HON 1013 or POL 1113.

POL/HIS 4013 African History and Politics – 3 hours (Spring, odd years)

Explores the political and economic changes in African states and the issues of development since independence. Included in the study are the historical origins of the African state, the contemporary context of globalization, and the position of Africa in the world economic system. Prerequisite: POL/HON 1013 or POL 1113.

POL 4453 Congress and the Legislative Process – 3 hours (Spring, even years)

Major topics include: origin and powers of the United States Congress; relation of Congress to the other branches of government and to the public; leadership, partisanship, the committee system and policy making; comparison with the state legislatures. Prerequisite: POL/HON 1013 or POL 1113 or consent of instructor.

POL 4563 The Supreme Court and Constitutional Development – 3 hours (Fall, odd years)

Focuses on landmark Supreme Court decisions and judicial interpretations of the U.S. Constitution from the 1790's until the present; topics addressed include origins of the Constitution, powers of the three branches, separation of powers, regulation of commerce and individual rights based on the Bill of Rights. Prerequisite: POL/HON 1013 or POL 1113 or consent of the instructor.

POL 4673 The American Presidency – 3 hours (Fall, even years)

Explains the role of the President in the American Federal System. Focuses on relations with the public and the press, the Congress and the Courts, the bureaucracy and public policy. Prerequisite: POL/HON 1013 or POL 1113.

POL 4883 Political Philosophy – 3 hours (Spring, even years)

A study of the political themes in the classical philosophies from Platonism to Marxism in comparison with biblical teachings on the same themes. Major topics addressed include: the nature of man, the ideal form of governments, the citizen's responsibility to the government, the government's responsibility to the citizen, the definition of liberty and the nature of human rights. Prerequisites: POL/HON 1013 or POL 1113 and 60 or more hours of credit.

POL 495(1-4) Intensive Studies in Political Science – 1-4 hours (Fall, Spring)

A seminar investigating a selected topic or theme in the light of previous and current interpretations. Areas of study will vary with each offering; therefore, the student may elect to repeat the course when different content is offered. Prerequisite: Six hours of political science and/or consent of instructor.

POL 498(1-8) Internship – 1-8 hours (On demand)

Credit for participation in approved off-campus internship, training, or in-service training experience in government related activity. Prerequisite: 12 hours of political science, 60 or more hours of credit, minimum GPA of 2.25, and approval of the division.

POL 499(1-3) Independent Studies – 1-3 hours (Fall, Spring)

Advanced studies of specific topics. Prerequisites: 15 hours of political science and 60+ hours of credit.

Psychology

PSY 1013 General Psychology – 3 hours (Fall, Winterfest, Spring)

A “life-oriented” course including physiological backgrounds of behavior, development, motivation, emotion, intelligence, personality, adjustment and social psychology. May be counted towards General Education credit.

PSY 2023 Mental Hygiene: Psychology Applied to Life – 3 hours (Fall even years, Spring even years)

A psychology of adjustment course focusing on areas affecting mental health (i.e., stress, personality, forgiveness, faith, interpersonal skills, life experiences). Emphasis on personal growth through self-examination and community. Prerequisite: 32 hours completed.

PSY 2033 Social Engineering – 3 hours (Spring Odd Years)

Human behavior relating to cyber systems and operations, such as social engineering, social networks, user experience, and organizational behavior. Lab fee \$12. Prerequisites: CIS 1163 and either PSY 1013 or SOC 1003.

PSY 2063 Systems of Psychology – 3 hours (Fall, Spring)

Major concepts of various systems of psychological thought in current and historical perspective. Prerequisite: PSY 1013.

PSY 295(1-3) Special Topics – 1-3 hours (On demand)

Study of critical issues and topics in psychology not covered in other course offerings. Areas of study will vary from year to year. Students may repeat this course once.

PSY 3003 Human Sexuality – 3 hours (Fall, on demand)

A course designed to provide the student with frank, factual information about the many aspects of sex; to help enable the student to see sex as a natural, integral, God-ordained component of marriage; and to dispel common myths and misconceptions about sex. Prerequisite: 64 hours completed.

PSY 3013 Relationships – 3 hours (Spring even years)

Theory and research practically applied to relationships, including family, friends, romantic, and spiritual relationships. Includes an examination of function and dysfunction in relationships. An emphasis on developing healthy relational practices, communication, and skills in relating well to others.

PSY 3033 Abnormal Psychology – 3 hours (Fall, Spring)

An introductory study of psychopathology using an integrative approach to discuss etiology, symptoms, and treatment issues for major disorders as described in the most recent Diagnostic and Statistical Manual of Mental Disorders, along with a brief discussion of research, ethics, and involuntary commitment issues. Prerequisite: PSY 1013.

PSY 3063 Human Growth and Development – 3 hours (Fall, Spring, Summer)

A study of human growth and developmental processes including physical, cognitive, and socioemotional development from conception through old age, as well as a brief discussion concerning death and bereavement. Students receiving credit for this course cannot receive credit for both PSY 3053 and PSY 4033 in the psychology major. Prerequisite: PSY 1013 or EDU 2113.

PSY 3083 Neurodevelopmental Disorders – 3 hours (Spring)

Definition, diagnosis, classification, perceptual and conceptual evaluation. Includes Autism Spectrum Disorders, Intellectual Disability, ADHD, Communication disorders, and Conduct disorders. A multi-disciplinary approach to cognitive impairments. Prerequisites: PSY 1013 or SOC 1003.

PSY 310(1-3) Contemporary Issues in Psychology – 1-3 hours (Winterfest, Spring, Summer)

In depth course focusing on a series of contemporary issues in psychology. Students will practice critical thinking, reading, and writing skills on topics specific to psychology. Prerequisites: PSY 1013 or SOC 1003 and 64 hours completed.

PSY 3313 Introduction to Counseling – 3 hours (Spring)

An introduction to counseling theory, methods and techniques, including a study of client-counselor encounters, stages of counseling and the counseling interview. Prerequisites: PSY 2063 or 64 hours completed.

PSY 3393 Introduction to Sports Psychology – 3 hours (Spring)

An introduction to the field of sports psychology and performance enhancement. This course will cover sport and exercise psychology as well as techniques used in the field. This course will prepare the student for any graduate program that is in the area of sports psychology. Prerequisites: PSY 1013.

PSY 4023 The Psychology of Personality – 3 hours (Spring odd years)

A survey and analysis of major theories of personality development including factors and conditions relating to the structure and dynamics of personality. Prerequisite: PSY 2063.

PSY 4033 Adolescent Development – 3 hours (Spring, even years)

A study of the development processes of the adolescent, beginning at puberty and continuing through late adolescence. Prerequisite: PSY 1013 or EDU 2113.

PSY 4083 Psychology of Religion – 3 hours (Fall odd years)

This course will include an examination of theory and research pertaining to psychological perspectives on religious belief, behavior, development, and outcomes from a Christian perspective. Also to include an examination of the relationship between psychology and Christian faith.

PSY 4093 Behavioral Analysis – 3 hours (Fall, odd years)

The rationale and theoretical basis of behavior analysis and modification and its use in a clinical setting. Specific principles and techniques will be discussed. Specific principles and techniques will be discussed. Prerequisites: PSY 2063.

PSY 4153 Child Development – 3 hours (Spring odd years)

A study of the operation of normal psychological and developmental processes in the lives of children from birth through adolescence. Prerequisite: PSY 1013 or EDU 2113.

PSY 4223 Psychological Testing – 3 hours (Spring even years)

Survey of the field of psychological testing with emphasis on types of tests, validity and reliability.

Prerequisites: PSY 2063 and BEH 3243.

PSY 4243 Pre-Marital Counseling – 3 hours (On Demand)

An applied course designed to give the student a working knowledge of premarital counseling. Focus will be given to assessment tools, biblical foundation of marriage and the premarital counseling process.

Prerequisite: 64 hours completed.

PSY 4263 Physiological Psychology – 3 hours (Fall, even years)

An introduction to the biological/physiological basis for human behavior. The structure and the function of the brain and nervous system, neuropsychological methods, sensation, emotional responses, learning, memory and psychopathology will be covered. Prerequisites: PSY 2063 and BIO 1003, BIO 1001 or BIO 1114.

PSY 4273 Small Group – 3 hours (Spring odd years)

An innovative course that is conducted as an "experiential interaction laboratory" providing students the opportunity to increase their understanding and skills in the areas of personal, interpersonal and small group communication. Prerequisites: 64 hours completed. Graded Pass/Fail

PSY 4313 Counseling Methods and Practice – 3 hours (Fall)

An experientially oriented study of the counseling process with special emphasis on methodology and practice in the art of listening and the exercise of appropriate judgment. Prerequisite: Minimum of a C in PSY 3313.

PSY 4363 Marriage and Family Counseling – 3 hours (Fall)

Theories and practices of marriage and family practice, with emphasis on the family as a system. Include intergenerational and development issues and characteristics of a successfully functioning family.

Prerequisite: 64 hours completed.

PSY 4373 Addictions – 3 hours (Fall)

A study of the effects of drugs on the human being, issues of physiology, psychology, sociology and religion will be addressed as they relate to chemical dependency. An overview of treatment methods and therapy will be included. Prerequisite: 64 hours completed.

PSY 4883 Advanced Counseling Methods and Practice – 3 hours (Spring)

A course designed to give the advanced counseling minor practice in role-play counseling situations involving the initial interview, analysis of data, written summaries, diagnosis and critique of same. This class will involve videotaping of the role-play sessions. Prerequisite: Minimum of a C in PSY 4313.

PSY 495(1-4) Intensive Studies – 1-4 hours (On demand)

A study of critical issues in psychology that are not covered in other course offerings. Areas of study will vary from year to year. Students may elect to repeat the course. Prerequisite: 64 hours completed.

PSY 498(3-6) Internship – 3-6 hours (Fall, Spring, Summer, Winterfest on demand)

The internship experience is designed to give the upper level psychology major supervised field experience in a social services or related area. Prerequisites: 64 hours completed, at least 15 hours of the major and minimum GPA of 3.00. Graded Pass/Fail.

PSY 499(1-3) Independent Studies – 1-3 hours (On demand)

Advanced studies of specific topics arranged by division head.

Radiography

RAD 1002 Clinical Education I – 2 hours (clinical only) (Fall, 8-Weeks)

Clinical experiences under the supervision of registered Radiologic Technologists. Students' progress through a structured, sequential, competency-based clinical education system. Students will use critical thinking and problem solving skills in applying concepts learned from radiographic procedure courses in performing examinations. Students will employ patient care and communication skills. Prerequisite: RAD 1103. Course fee: \$250.

RAD 1003 Clinical Education II – 3 hours (clinical only) (Spring)

This is a continuation of Clinical Education I. Clinical experiences under the supervision of registered Radiologic Technologists. Students' progress through a structured, sequential, competency-based clinical education system. Students will use critical thinking and problem solving skills in applying concepts learned from radiographic procedure courses in performing examinations. Students will employ patient care and communication skills. Prerequisite: RAD 1002. Course fee: \$250.

RAD 1103 Introduction to Radiologic Technology – 3 hours (didactic only) (Fall, 8-weeks)

An overview of the radiology profession and health care environment, radiography program policies, basic radiation protection, introduction to imaging, medical ethics and law, and methods of patient care. Attendance of hospital orientation and basic life support (BLS) certification are required. Prerequisites: Admission to the Program

RAD 1305 Radiographic Procedures I – 5 hours (3 hours didactic, 2 hours lab) (Fall)

Fundamentals of radiographic procedures, positioning techniques and terminology. This course includes routine positions and an introduction to image analysis. Radiographic anatomy, radiation protection and patient care skills are reinforced. Lab will include demonstrations, practice and evaluations. Lab fee: \$100. Prerequisites: BIO 2204, BIO 3304.

RAD 1504 Radiologic Science – 4 hours (didactic only) (Fall)

A study of the fundamentals of atomic theory, basic electricity and x-ray circuitry, structure and function of x-ray tubes, the production and emission of x-radiation. Prerequisites: MAT 1143 or MAT 1243.

RAD 1604 Radiographic Procedures II – 4 hours (3 hours didactic, 1 hour lab) (Spring)

Advanced radiographic procedures and positioning techniques. This course includes positioning modifications based on patient's condition and age. Radiographic anatomy, radiation protection and patient care skills are reinforced. Lab will include demonstration, practice, evaluations and image analysis. Lab fee: \$100. Prerequisites: RAD 1305.

RAD 1803 Radiographic Imaging I – 3 hours (didactic only) (Spring)

A study of radiographic image qualities and the factors that produce the image. Methods of improving image quality and image analysis are included. Prerequisites: RAD 1103, RAD 1504.

RAD 2010 New Student Orientation – 0 hours (Fall)

This is a no credit course that outlines the learning management system, technological systems, student resources, and institutional processes. This course is designed to familiarize students with the college's academic expectations, available student support services, and institutional processes during the first semester to promote student success in the nursing program. All students are required to register and participate in the orientation course.

RAD 2201 Contrast Agents – 1 hour (didactic only) (Fall)

Course involves study of contrast agents and pharmacology, including types, uses, patient reactions, and emergency treatment for reactions. The basic techniques of venipuncture are included. Prerequisites: CHE 1103/CHE 1101, CHE 1114/CHE 1111, or PHY 1114, and RAD 1504.

RAD 2203 Clinical Education III – 3 hours (clinical only) (Summer)

This is a continuation of Clinical Education II. Clinical experiences under the supervision of registered Radiologic Technologists. Students' progress through a structured, sequential, competency-based clinical education system. Students will use critical thinking and problem solving skills in applying concepts learned from radiographic procedure courses in performing examinations. Students will employ patient care and communication skills. Prerequisite: RAD 1003. Course fee: \$250.

RAD 2213 Clinical Education IV – 3 hours (clinical only) (Fall)

This is a continuation of Clinical Education III. Clinical experiences under the supervision of registered Radiologic Technologists. Students' progress through a structured, sequential, competency-based clinical education system. Students will use critical thinking and problem solving skills in applying concepts learned from radiographic procedure courses in performing examinations. Students will employ patient care and communication skills. Prerequisite: RAD 2203. Course fee: \$250.

RAD 2223 Clinical Education V – 3 hours (clinical only) (Spring)

This is a continuation of Clinical Education IV. Clinical experiences under the supervision of registered Radiologic Technologists. Students' progress through a structured, sequential, competency-based clinical education system. Students will use critical thinking and problem solving skills in applying concepts learned from radiographic procedure courses in performing examinations. Students will employ patient care and communication skills. Prerequisite: RAD 2213. Course fee: \$250.

RAD 2612 Radiographic Procedures III – 2 hours (didactic only) (Fall)

A comprehensive study of examinations with emphasis on studies utilizing contrast media. Includes image analysis. Radiographic anatomy, radiation protection and patient care skills are reinforced. Lab fee: \$100. Prerequisites: RAD 1604.

RAD 2812 Radiographic Imaging II – 2 hours (didactic only) (Fall)

A study of digital imaging radiography systems including an overview of digital imaging, computed radiography, digital radiography, digital fluoroscopy, networking, and PACS systems. Includes image analysis. Also includes conventional fluoroscopy and Introduction to Quality Management. Prerequisites: RAD 1504 and RAD 1803.

RAD 2902 Radiation Protection & Biology – 2 hours (didactic only) (Fall)

An in depth study of radiation biology and radiation protection principles to include radiation quantities and units, interactions of radiation with matter, molecular and cellular radiation biology, stochastic and deterministic effects, radiation protection principles for the patient and occupational worker, radiation detection and protection from radioisotope sources, radiation exposure limits and regulations. Prerequisites: CHE 1003/CHE 1001, RAD 1504, and RAD 1803.

RAD 2911 Advanced Modalities – 1 hour (didactic only) (Spring)

A study of advanced radiologic imaging modalities including Computed Tomography, Magnetic Resonance Imaging, and Ultrasonography. Prerequisites: RAD 2612.

RAD 2921 Career Development – 1 hour (didactic only) (Spring)

Students will prepare for employment through development of interview skills and creation of resumes. Prerequisites: RAD 2612.

RAD 2922 Radiologic Pathology – 2 hours (didactic only) (Spring)

Introduction to pathology including etiology and process of human trauma and disease according to body systems. Emphasis on radiographic appearance of diseases and adjustments to radiographic technique for disease processes. Prerequisites: BIO 2204, BIO 3304, RAD 2612.

RAD 2931 Cross-Sectional Anatomy – 1 hour (didactic only) (Spring)

An investigation of cross-sectional anatomy of the cranium, thorax, abdomen, and pelvis. Includes a comparative study of relationship anatomy with correlation of computed tomography and magnetic resonance imaging. Prerequisites: BIO 2204, BIO 3304, RAD 1504, RAD 2612.

RAD 2944 Curriculum Review – 4 hours (didactic only) (Spring)

A comprehensive review with an emphasis on test taking skills in preparation to sit for a credentialing examination. Prerequisites: RAD 2911, RAD 2921, RAD 2922, RAD 2931. Course Fee: \$200.

Religion

REL 295(1-3) Special Topics in Religion – 1-3 hours

Investigation of selected themes, topics or current issues in religion. Areas of study will vary from year to year (the course may be repeated).

REL 499(1-3) Independent Research - 1-3 hours

Science And Christian Faith

SCF 3402 Biology Through the Eyes of Faith – 2 hours (Fall, Spring)

Study from the biblical perspective of the unique nature of biology and its interaction with Christian thought. Working from the authority of the Scriptures and the conviction that Christianity is true, this course examines the history of biology, emphasizing the interactions of the life sciences with society in medicine, genetics and the environment. Prerequisite: General education requirement in life science.

SCF 3412 Chemistry Through the Eyes of Faith – 2 hours (Fall, odd years)

Study from the biblical perspective of the unique nature of chemistry and its interaction with Christian thought. Working from the authority of the Scriptures and the conviction that Christianity is true, this course examines the history of chemistry, emphasizing the interactions of chemistry with society in religion, medicine and the environment. Prerequisite: General education requirements in the physical sciences.

SCF 3422 Mathematics Through the Eyes of Faith – 2 hours (Fall, even years, Winterfest, even years)

Study from the biblical perspective of the unique nature of mathematics and its interaction with Christian thought. Working from the authority of the Scriptures and the conviction that Christianity is true, this course examines the history of mathematics, emphasizing the interactions of mathematics with society and Christian thought. Prerequisite: General education requirements in mathematics.

SCF 3432 Physics Through the Eyes of Faith – 2 hours (Spring, even years)

Study from the biblical perspective of the unique nature of physics and its interaction with Christian thought. Working from the authority of the Scriptures and the conviction that Christianity is true, this course examines the history of physics, emphasizing the interactions of the physics and astronomy with society and religious thought. Prerequisite: General education requirements in physical science.

Social Work

SWK 2003 Introduction to Social Work – 3 hours (Fall, Spring on demand)

This course will provide students with a broad overview of the profession of social work. Specific attention will be given to social work's historical background, ethics and values, practice settings, and historical and current social welfare policies.

SWK 295(1-3) Special Topics – 1-3 hours (On demand)

Study of critical issues and topics in social work not covered in other course offerings. Areas of study will vary from year to year. Students may repeat this course once.

SWK 3013 Integrating Faith & Social Work Practice – 3 hours (Fall)

This course explores the basic tenants of a Christian worldview and compares and contrasts them with the underlying values and theoretical basis of social work. Students will be encouraged to develop personal insight and understanding on how to integrate Christian principles and values into social work practice. Additionally, considerations for social work practice with other faiths likely to be encountered in practice settings will be explored. Prerequisite: Admission to the BSW program or permission of the instructor.

SWK 3043 Social Work with Diverse Populations – 3 hours (Spring)

In this course, students explore a deeper understanding of oppression, marginalization, discrimination, and racism, including intersectionality, preparing students to work with diverse groups in local and global settings. Identifying and developing skills for culturally sensitive social work generalist practice will be emphasized in this course. Prerequisite: Admission to the BSW program.

SWK 3113 Social Work Practice I: Helping Skills – 3 hours (Fall)

This course is the first in a series of four social work practice courses. It will introduce the student to fundamental knowledge and skills necessary for professional generalist social work practice, with an emphasis on micro social work practice. Prerequisite: SWK 2003 and admission to the BSW program or a declared social work minor.

SWK 3123 Social Work Practice II: Individuals – 3 hours (Spring)

This course is the second in a series of four social work practice courses. The purpose of this course is continued preparation for generalist social work practice with an emphasis and focus on micro level social work practice with individuals. Program fee \$250. Prerequisite: SWK 3113 and admission to the BSW program, or a declared social work minor.

SWK 3133 Social Work Practice III: Families and Groups – 3 hours (Spring)

This course is the third in a series of four social work practice courses. The purpose of this course is continued preparation for generalist social work practice with an emphasis and focus on mezzo social work and practice with groups and families. Prerequisite: SWK 3113 and admission to the BSW program or a declared social work minor.

SWK 4063 Legal Aspects and Implications of Social Work Practice 3 hours (On Demand)

This is an upper level course focusing on Legal aspects affecting social work and mental health practice. Content includes Legal duties and obligations, ethics, Forensic roles of social workers and mental health professionals. Expert witness testimony, civil law, and professional liability are also covered. Student will also study case laws that affect the social work and mental health professions, along with forensic and legal mental health studies.

SWK 4093 Social Problems and Social Policy 3 hours (Spring)

This course introduces students to social problems which are addressed by social welfare policies. The course will describe the history of tackling the problems from the twin perspectives of Social Work and Sociology. Students will apply a policy analysis framework to determine the rudimentary elements of, strengths and limitations of certain social welfare policies while considering how to best address these limitations. Students will also learn how social workers and sociologists have impacted the development of social welfare policies historically and how they can impact policy development today. Prerequisite: SOC 1003.

SWK 4143 Social Work Practice IV: Communities & Organizations – 3 hours (Spring)

This course is the fourth in a series of four social work practice courses. The purpose of this course is continued preparation for generalist social work practice with an emphasis and focus on macro social work and practice with communities and organizations. Prerequisite: SWK 3113 and admission to the BSW program or a declared social work minor.

SWK 4256 BSW Seminar and Practicum I – 6 hours (Fall)

This is the first of two seminar and practicum courses designed to assist students to discuss and evaluate their field work experiences. The course will facilitate and reinforce the application of social work values, ethics, knowledge, and skills in field settings. Students will complete 200 hours in their field placement as part of this course. Prerequisite: Admission to the BSW program and completion of SWK 3113, SWK 3123 and SWK 3133 with a minimum of a “C” in each course and clearance from the Director of Field Education to begin field experience.

SWK 4266 BSW Seminar and Practicum II – 6 hours (Spring)

This is the second of two seminar and practicum courses designed to assist students to discuss and evaluate their fieldwork experiences. The course will facilitate and reinforce the application of social work values, ethics, knowledge, and skills in field settings. Students will complete 250 hours in their field placement as part of this course. Program fee \$400. Prerequisite: Admission to the BSW program, completion of SWK 3113, SWK 3123, SWK 3133, and SWK 4256 with a minimum of a “C” in each course and clearance from the Director of Field Education to continue field experience.

Sociology

SOC 1003 Introductory Sociology – 3 hour (Fall, Spring)

Survey of major subject areas and principles of sociology. Topics of the nature and development of culture; social aspects of personality; population trends, social classes, institutions and social change.

SOC 2012 Human Diversity – 2 hours (Fall, Spring)

This course is designed to expose students to the wide range of diverse human perspectives found in our society. Content will focus on cultural influences, global connectedness, and understanding the universality and diversity that characterize humans. Prerequisites: SOC 1003 or PSY 1013.

SOC 295(1-3) Special Topics – 1-3 hours (On demand)

A study of critical issues and topics in sociology not covered in other course offerings. Areas of study will vary from year to year. Students may repeat this course once.

SOC 3003 The Family – 3 hours (Fall)

Course is an examination of the social impact of marriage and the family. It is a study of family life, dating, marriage and the family life-course. An analysis of traditional and modern familial roles, patterns, and relationship is included. Prerequisite: 32 hours completed.

SOC 3143 Sociology of Diverse Groups 3 hours (Fall)

Provides an overview of majority/minority relations within the United States. Minority groups may be defined by categories of race, ethnicity, religion and gender. Prerequisite: SOC 1003.

SOC 3253 Child Abuse and Family Violence 3 hours (Fall)

This course examines the issues of violence in the family, child abuse and child neglect and the various implications in the treatment and society's response. Applications of the law in the State of Missouri will also be addressed.

SOC 4033 Criminology – 3 hours (Spring)

A study of sociological theories of crime and delinquency, of crime control including punishment and treatment, and of practices and organizations of police, courts, probation and parole departments and prisons. Prerequisite: SOC 1003 and 64 hours completed.

SOC 4053 Death and Dying – 3 hours (Spring)

An examination of how society and its institutions, the individual and survivors view and are affected by the process of dying and death. Guidelines are provided to enable the students to aid others and themselves in dealing with death and dying. Prerequisite: PSY 1013 or SOC 1003.

SOC 4073 Sociology of Religion – 3 hours (Spring, odd years)

A study of the social and cultural influences on religion in the American and global society. Prerequisite: SOC 1003.

SOC 4083 Gerontology – 3 hours (Fall)

This course is designed to acquaint the student with the theories of aging, the way the aging individual relates to the social systems, adjustment patterns of the aging and societal issues confronting older Americans. Prerequisite: PSY 1013 or SOC 1003.

SOC 4093 Social Problems and Social Policy 3 hours (Spring)

This course introduces students to social problems which are addressed by social welfare policies. The course will describe the history of tackling the problems from the twin perspectives of Social Work and Sociology. Students will apply a policy analysis framework to determine the rudimentary elements of, strengths and limitations of certain social welfare policies while considering how to best address these limitations. Students will also learn how social workers and sociologists have impacted the development of social welfare policies historically and how they can impact policy development today. Prerequisite: SOC 1003.

SOC 495(1-4) Intensive Studies – 1-4 hours (On demand)

A study of critical issues in sociology that are not covered in other course offerings. Areas of study will vary from year to year. Students may elect to repeat this course. Prerequisite: 12 hours of sociology and 64 hours completed.

SOC 4963 Field Experience in Gerontology (On demand)

Involves field experience in an agency that focuses on senior adult related activities and/or service delivery. It is provided to integrate classroom knowledge with hands on activities. Settings are determined according to individual needs and circumstances. Prerequisite: Minimum of C in SOC 4083 Gerontology, 3.00 GPA and 64 hours completed. *Note:* All Gerontology minor course work must be completed prior to enrolling in this course.

SOC 498(3-6) Internship – 3-6 hours (Fall, Spring, Summer, Winter on demand)

Internship is designed to provide the upper-level sociology major with supervised field experience in a social services or related area. Prerequisites: 64 hours completed, at least 15 hours of the major, minimum 3.00 GPA. Graded Pass/Fail.

SOC 499(1-3) Independent Studies – 1-3 hours (On demand)

Advanced studies of specific topics arranged by division head.

Spanish

SPA 1114 Elementary Spanish I – 4 hours (Fall)

Pronunciation, grammar, reading of simple prose, aural-oral practice.

SPA 1124 Elementary Spanish II – 4 hours (Spring)

Continuation of SPA 1114. Prerequisite: SPA 1114.

SPA 2213 Intermediate Spanish I – 3 hours (Fall)

Grammar review, simple composition and conversation, and the reading of short narratives. Prerequisite: SPA 1124 or satisfactory placement score.

SPA 2223 Intermediate Spanish II – 3 hours (Spring)

Continuation of SPA 2213 with emphasis on reading. Prerequisite: SPA 2213 or satisfactory placement score or two years of high school Spanish.

SPA 293(1-3) Special Reading in Spanish – 1-3 hours (On demand)

Readings on specific subjects. A theme will be chosen for study. (TBA with instructor). Prerequisite: SPA 2223.

SPA 295(1-4) Special Topics – 1-4 hours (On demand)

SPA 3313 Advanced Spanish Composition and Conversation – 3 hours (Fall, even years)

The writing of themes and practice in grammar, idioms and everyday conversation. Prerequisite: SPA 2223.

SPA 3323 Hispanic Culture and Civilization – 3 hours (Spring, odd years)

Spanish and Latin American civilization, customs and culture from its beginning to present times.

SPA 3333 Survey of Early Spanish Literature – 3 hours (Fall, odd years)

Spanish literature from the beginning to the eighteenth century. Prerequisite: SPA 3313 or 3323.

SPA 3343 Survey of Later Spanish Literature – 3 hours (Spring, even years)

Spanish literature from the eighteenth century to the present. Prerequisite: SPA 3313, 3323 or 3333.

SPA 495(1-4) Intensive Studies – 1-4 hours

SPA 497(1-3) Symposia – 1-3 hours

SPA 499(1-3) Independent Studies– 1-3 hours

Methods of Teaching Foreign Language

(See EDU 4563).

Spiritual Formation

SPF 2012 Introduction to Spiritual Formation – 2 hours (Fall, Spring)

An exploration of what it means to be a Christ-follower: biblically, historically, and in the contemporary context.

SPF 2023 Introduction to Spirituality – 2 hours (Fall, Spring)

An introduction to spirituality. The goal is to develop an appreciation for spirituality. Emphasis will be on the impact of spirituality in history particularly regard to Christianity as well as to the individual spiritual journey. Meets graduation requirements for Spiritual Formation.

SPF 2032 Spiritual Formation for Ministry – 2 hours (Fall, Spring)

This course provides formative spiritual development for those preparing for Christian service in the church and the world. It is required for majors in the Division of Theology and Ministry, and recommended for other students preparing for Christian Service. Meets graduation requirements for Spiritual Formation.

SPF 295(1-3) Special Topics in Spiritual Formation – 1-3 hours (On demand)

A focus on special topics in the field of spiritual formation.

SPF 495(1-4) Intensive Studies in Spiritual Formation – 1-4 hours

A focus on a special area of interest in the field of spiritual formation or missions. Topics will vary from year to year. (May be taken more than once).

Sport Management

SPM 1113 Introduction to Sport Management – 3 hours (Fall)

The course is designed to provide the student with the overview of a career in sport management including areas of professional endeavors which cover a wide variety of sport and fitness related occupations. The course will also provide an academic perspective of the professional preparation necessary to achieve employment in the profession.

SPM 2093—Athletic Event & Facility Management (Fall)

This course will emphasize the planning, design, and management of athletic events and facilities. Consideration will be given to the planning process, budgeting, sponsorship, marketing, promotion, staffing, logistics, and risk management of athletic events and facilities.

SPM 4023. Organization and Administration of Sport - 3 hours (Fall)

A course emphasizing the functions of management as they relate to the sport environment. Special consideration is given to the areas within the planning, organizing, leading, and controlling functions of the sport manager's position. Prerequisite: 64 credit hours.

SPM 4033—Applied Sport Marketing (Spring)

This course is designed to provide students with an in-depth understanding of the application of marketing principles in the sport environment. Special consideration is given to sport marketing at the college and professional levels. Specific emphasis is placed on marketing strategy and research, market segmentation, sponsorships, event marketing, branding, and international marketing of sport products and services. Prerequisite: MKT 3023 Principles of Marketing.

SPM 4043—Legal & Ethical Issues in Sport (Fall)

This course will emphasize the broad study of legal and ethical issues occurring at all levels of sport. Consideration will be given to legal issues such as torts, risk management, discrimination, contracts, labor relations, as well as the ethical implications of each, as they relate to sport administrators, coaches, athletes, and spectators.

SPM 4986 Internship in Sport Management – 6 hours (Fall, Spring, Summer, Winterfest)

A fulltime residency for on-the-job training under the supervision of a sport management professional. Includes observation, supervision, planning, instruction, direct leadership and evaluation. Minimum requirement-240 hours. Prerequisites: A minimum grade of "C" in all sport management courses; a

minimum overall GPA of 2.00 in all course work taken at SBU prior to application for internship and prior to internship itself; restricted to Sport Management majors of senior standing; advanced application no later than September or February of preceding semester. Course fee \$100.

Theatre

THR 1023 Acting I – 3 hours (Fall)

Fundamentals of acting techniques.

THR/FAR 1033 Introduction to Theatre – 3 hours (Fall)

A study of the history and literature of the theatre with introductory participation in the areas of acting and stagecraft. Emphasis on reading and attending plays.

THR 1053 Stagecraft – 3 hours (Fall)

Basic principles of scenic construction, scenic painting, and lighting and sound techniques.

THR 2013 Script Analysis – 3 hours (Fall, odd years)

An investigation of dramatic structure and analysis from the perspective of the director, the actor, and the designer. This course is also designed to introduce students to several major plays in the history of dramatic literature.

THR 2031 Makeup – 1 hour (Spring)

Laboratory exercises in the basic fundamentals of stage makeup. Lab fee: \$75.

THR 2043 Introduction to Film – 3 hours (On demand)

An introduction to experiencing and understanding the cinematic arts. Upon successful completion, students will possess a conceptual framework and vocabulary that enhances their enjoyment of and ability to evaluate a film.

THR 3013 Stage Management – 3 hours (Spring, odd years)

A thorough analysis of the technical and organizational aspects of stage management. Emphasis on the stage manager's process, including an overview of general responsibilities and basic conflict resolution concepts.

THR 3033 Acting II – 3 hours (Spring, even years)

Advanced acting techniques. Emphasis on motivation, characterization and showmanship. Prerequisite: THR 1023.

THR 3053 Scene Design – 3 hours (Spring, even years)

Basic concepts of scene design for the stage. Exploration of scene design and the theatre, scene design as a visual art as well as technical production. Prerequisite: THR 1053 and THR 2013.

THR 3063 Costume Design – 3 hours (Spring, odd years)

A study of the costume design process: research, direction, and rendering of ideas. Emphasis on character analysis. This course also offers a basic exposure to costume construction techniques. Prerequisite: THR 2013. Lab fee: \$35.

THR/COM 3303 Oral Interpretation of Literature – 3 hours (Fall, even years)

Emphasis on theory and practice of communicating works of literature from the printed page. Prerequisite: COM 1103. Course Fee: \$10.

THR 4003 Lighting and Sound Design – 3 hours (Spring, odd years)

A study of the process of lighting and sound design. Emphasis on hands-on experience with lighting instruments, and lighting and sound systems. Prerequisite: THR 1053 and THR 2013.

THR 4013 Theatre Management – 3 hours (Spring, even years)

A study of the theory and practice of theatre management in areas of commercial, non-profit, college, and community theatre. Theory and practice of administration for non-profit and commercial theatres.

THR 4023 Directing of Plays – 3 hours (Fall, even years)

Principles of directing the various steps of a production, and practice in rehearsing and presenting plays. Prerequisite: THR 1023, THR 1033, THR 1053, and THR 2013.

THR 4033 American Theatre History – 3 hours (On demand)

A survey of the history of the American theatre, from the 18th century to the present.

THR 4043 Acting III – 3 hour (Spring, odd years)

Actors will learn to use their physical instrument through movement, vocal techniques, and non-realistic acting styles. Styles and techniques used in this class may include Grotowski, clowning, physical ensemble creation, mask work, Solo-Performance/Performance Ethnography, BodyWorks, Viewpoints, Alexander Technique, period movement styles, and others.

THR/WRT 4053 The Art and Craft of Playwriting – 3 hours (On demand)

A study and practicum of the art of playwriting. Emphasis on reading and writing plays.

THR 4203 The History and Literature of Theatre I – 3 hours (Fall, even years)

An overview of theatrical practices, innovations, and literature from 2000 BC through the 18th century. Emphasis will be placed on an examination of dramatic scripts, primary sources, and received historical narratives as a means for exploring the cultural significance of theatre and performance. Prerequisite: FAR/THR 1033.

THR 4213 The History and Literature of Theatre II – 3 hours (Spring, odd years)

An overview of theatrical practices, innovations, and literature from the 18th century through the present. Emphasis will be placed on an examination of dramatic scripts, primary sources, and received historical narratives as a means for exploring the cultural significance of theatre and performance. Prerequisite: FAR/THR 1033.

THR 4311 Senior Capstone – 1 hour (Fall)

Senior Capstone provides an intensive audition and/or portfolio development workshop for theatre majors. The course is meant to be taken during the Fall semester of the student's last year at SBU.

THR/ENG 4413 Shakespeare – 3 hours (Spring, odd years)

Tragedies, histories and comedies of Shakespeare. Prerequisite: Completion of the general education requirement in composition

THR 495(1-3) Intensive Studies – 1-3 hours (On demand)

THR 4963 Practicum – 3 hours (On demand)

A synthesis experience allowing the student the opportunity to direct or design and construct technical elements for a production of his or her choosing. Prerequisite: THR 1053 or THR 3033 and THR 4023.

THR 499(1-3) Independent Studies – 1-3 hours (Fall, Spring)

Advanced studies of specific topics arranged by division head.

Theatre – Workshop Courses

Only four (4) credit hours in any one workshop may be earned toward a major. Students enroll in workshops according to classification: (1) Freshman (2) Sophomore (3) Junior (4) Senior.

THR (1,2,3,4)001 Theatre Performance Workshop – 1 hour (Fall, Spring)

Open to all students by audition. Rehearsal and performance of a major drama production. Grade is based on attendance, professional attitude and conduct, and performance evaluation.

THR (1,2,3,4)011 Theatre Production Workshop – 1 hour (Fall, Spring)

Open to all students. Thirty (30) hours of work on backstage duties and/or technical crews for major drama production is required. Grade is based on successful completion of assigned work, professional attitude and conduct, and evaluation by instructor.

THR/MUS (1,2,3,4)041 Opera Theatre – 1 hour (Fall, Spring)

Open to all students by audition. Laboratory for study and performance of operatic solos and ensembles. One major production per semester. Two rehearsals per week.

Methods of Teaching Theatre in the Middle and Secondary Schools

(See EDU 4502).

Methods of Teaching Speech in the Middle and Secondary Schools

(See EDU 4552).

Theology

THE 3023 Baptist Heritage – 3 hours (Spring)

Study of the history, beliefs and denominational programs of Baptists.

THE 3113 Christian Doctrine – 3 hours (Spring)

Analysis and interpretation of the major doctrines of the Christian religion.

THE 3773. Christian Heritage – 3 hours (Fall)

Survey of early medieval Christianity to the present.

THE 4003 Theological Method – 3 hours (On Demand)

An introduction to issues in the method of a constructive Christian theology, including but not limited to issues in religious epistemology, religious language and theological hermeneutics.

THE 4033 God and Humanity – 3 hours (On Demand)

A survey of Christian understanding of God and humanity in their biblical, historical and contemporary expressions, including revelation, scripture, Trinity, creation, providence, humanity in God's image, human nature and sin. Prerequisite: THE 3113.

THE 4043 Christ and Salvation – 3 hours (On Demand)

A survey of Christian understandings of Christ and salvation in their biblical, historical and contemporary expressions, including the person of Christ, atonement, justification and other dimensions of salvation. Prerequisite: THE 3113.

THE 4053 Church and Last Things – 3 hours (On Demand)

A survey of Christian understandings of the church and last things in their biblical, historical and contemporary expressions, including the nature and mission of the church, the ordinances/sacraments, death, resurrection and eternal life. Prerequisites: THE 3113.

THE/BIB 4073 New Testament Theology – 3 hours (On Demand)

An introduction to the discipline of biblical theology as it is undertaken in relation to the New Testament. Included is a discussion of methods, attendant methodological and hermeneutical problems, and possible results in a survey of the theology of the New Testament. Can also be taken for biblical studies credit. Prerequisite: BIB 2093.

THE 495(1-4) Intensive Studies in Theology – 1-4 hours

A focus on a special topic, theme or issue in the area of theology. Topics will vary from year to year. (May be taken more than once). Prerequisites: 64 hours completed. (Depending on topics, there may be a fee.)

University Studies

UNI 0111 Cornerstone – 1 hour (Fall, Spring)

Cornerstone is designed to promote success in students who have demonstrated the need for additional support in their transition to SBU. Cornerstone encourages and cultivates academic and practical skills, connects students with academic assistance, and engages students in the SBU community.

UNI 1111 University Seminar – 1 hour (Fall, Spring, Winterfest, Summer)

This course is designed to acclimate students to college coursework by promoting processes that lead to success such as effective time management and research-based study strategies. Examining these processes provides an understanding of the individual student's strengths and weaknesses related to studying and learning. Additionally, the course acclimates students to SBU and SBU's mission while considering the relationship between an individual's values and goals and his or her academic performance and future direction. This course must be taken during the first semester a student attends SBU. Course fee: \$12.

UNI 1121 Introduction to Critical Thinking – 1 hour (Fall, Spring, Winterfest, Summer)

This course is designed to promote awareness of a personal value system as well as to promote the use of critical thinking skills in the study of issues in today's society. This course must be taken during the first year a student attends SBU. Prerequisite: UNI IIII.

UNI 2110 Cornerstone Peer Leadership – 0 hour (Fall, Spring)

Cornerstone Peer Leadership develops leaders in the second-year and promotes achievement for first-year students through mentoring, networking, and skill building.

Writing

WRT/ENG 3013 Writing Poetry – 3 hours (Spring, odd years)

A workshop in the writing of original poetry, based on a study of poetic characteristics and genres. Prerequisite: Completion of the general education requirement in composition.

WRT/ENG 3023 Writing Creative Nonfiction – 3 hours (Fall, even years)

A workshop in creative nonfiction utilizing readings from varying genres and peer/instructor feedback. Prerequisite: Completion of the general education requirement in composition.

WRT/ENG 3033 Writing Creatively for Young Adults – 3 hours (Spring, even years)

A workshop in learning to write creatively for young adults in a variety of genres. Prerequisite: Completion of the general education requirement in composition.

WRT/ENG 3353 Advanced Composition – 3 hours (Spring even years)

Advanced expository writing, based on a study of contemporary prose. Prerequisite: Completion of the general education requirement in composition.

WRT/ENG 4003 Technical Writing – 3 hours (Fall, even years)

The application of rhetorical principles to the writing of investigative and descriptive reports on scientific and technological subjects. Prerequisite: Completion of the general education requirement in composition.

WRT/ENG 4013 Writing Short Fiction – 3 hours (Fall, odd years)

A workshop in short fiction writing utilizing readings from varying fiction genres and peer/instructor feedback. Prerequisite: Completion of the general education requirement in composition.

WRT/THR 4053 The Art and Craft of Playwriting – 3 hours (On demand)

A study and practicum of the art of playwriting. Emphasis on reading and writing plays.