

LCOM 460-469. PEER TUTORING TRAINING II (School of Engineering)

This is a special training program for selected volunteers chosen as to serve a second semester as Peer Tutors in the School of Engineering. The trainee participates in an intensive training program emphasizing content matter expertise as well as teamwork and leadership. The student will also serve as a mentor to first-time Peer Tutors. During the course of the semester, the student will have scheduled tutoring sessions with students enrolled in one or more classes in the School of Engineering. Prerequisite: Junior or senior standing and approval of the Director of Learning Communities. Offered in the Fall and Spring. *One Semester; three credits*

LCOM 470-479. PEER TUTORING TRAINING I (School of Science)

This is a special training program for selected volunteers chosen as Peer Tutors in the School of Science. The trainee participates in an intensive training program emphasizing content matter expertise as well as teamwork and leadership. During the course of the semester, the student will have scheduled tutoring sessions with students enrolled in one or more classes in the School of Science. Prerequisite: Junior or senior standing and approval of the Director of Learning Communities. Offered in the Fall and Spring. *One Semester; three credits*

LCOM 480-489. PEER TUTORING TRAINING II (School of Science)

This is a special training program for selected volunteers chosen as to serve a second semester as Peer Tutors in the School of Science. The trainee participates in an intensive training program emphasizing content matter expertise as well as teamwork and leadership. The student will also serve as a mentor to first-time Peer Tutors. During the course of the semester, the student will have scheduled tutoring sessions with students enrolled in one or more classes in the School of Science. Prerequisite: Junior or senior standing and approval of the Director of Learning Communities. Offered in the Fall and Spring. *One Semester; three credits*

■ MANAGEMENT COURSES

Requirements for the concentration are found on page 66.

MGMT 250. LEADERSHIP AND DIVERSITY

The intensive, year-long program is designed to develop leadership and interpersonal skills with the goal of informing positive social attitudes regarding the desirability and value of diversity in the community and the importance of community action. Topics include: leadership, civic responsibility, trust, problem-solving, critical thinking, communication, conflict resolution and human relations. Prerequisite: Admission to the Bridge Builders Junior Leadership Conference. Students will register for the course in the Spring semester. *Three credits*

MGMT 251. LEADERSHIP AND SERVICE

The intensive, year-long program will provide students with an opportunity to design and implement a major service project at a local high school. Students will provide leadership for the project by: conducting a needs assessment; identifying a specific need to address in their project; design, staff and implement the project; evaluate the effectiveness of the project; and, present their results to the community. Prerequisite: Admission to the Bridge Builders Senior Leadership Conference. Students will register for the course in the Spring semester. *Three credits*

MGMT 290. HONORS LEADERSHIP

Using a multidisciplinary approach to leadership, this class will include both theoretical and practical material from fields such as management, psychology, literature, history and religion. Students will develop their own philosophy of leadership and prepare themselves for leadership roles based on a thorough understanding of case studies and theoretical models. Prerequisite: membership in the Honors Program or permission of Honors Program Director and instructor. Offered as needed. *One semester; three credits*

MGMT 291-299. HONORS SPECIAL TOPICS

Special topics in management open to members of the Honors Program or by permission of Honors Program Director and instructor. *One semester; one to four credits*

MGMT 300. INTERNATIONAL BUSINESS & CULTURAL EXPERIENCE

This course introduces students to the business, political, economic, and cultural environments of a selected country. Experiential study, classroom lectures, and activities including site visits, guest lectures, and cultural experiences are integrated to develop a comprehensive understanding of the country selected. The course content includes a visit to the country selected for study. Open to all students. Students must have a valid passport. Course may be repeated for different countries. *One semester; three credits*

MGMT 320. INTERNATIONAL BUSINESS

An introduction to the field of international business and the implications of international trade and globalization upon American business. Topics include the comparison of political economies and cultures, global trade and investment strategies, foreign investment, regional economic integration, foreign exchange markets, strategic alliances and global marketing. Prerequisite: ECON 214 & 215 or ECE/CH E/CE/ME 314. Offered in both the Fall and Spring semesters. *One semester; three credits*

MGMT 339. OPERATIONS MANAGEMENT

An in-depth look at the production/operations functions of organizations. Topics will include product and process strategies, quality programs, location and layout strategies, inventory control techniques, and a comparison of the operational strategies used by both manufacturing and service organizations. The course will integrate quantitative modeling with business problem solving. Prerequisites: Junior standing and MGMT 352 and grade of "C" or better in STAT 222. Offered in the Fall semester. *One semester; three credits*

MGMT 352. ORGANIZATIONAL BEHAVIOR AND MANAGEMENT

The psychology of organizations and their effect on individuals and groups. Topics include motivation theory, power and authority, communication, teamwork, leadership, job design and organizational structures. Other issues include globalization, cultural diversity, ethics and technology. Offered in both the Fall and Spring semesters. *One semester; three credits*

MGMT 400. MANAGEMENT INTERNSHIP (Formerly BUS 400)

Under the supervision of a faculty member from the appropriate department, students in the School of Business, after receiving the approval of the faculty, are placed in the offices of cooperating firms to receive on-the-job training under the supervision of members of the firm. Credit is granted upon acceptance of periodic reports and a final summary report of work done verified by the authorized supervisor and the instructor. *Pass/Fail Grading. One semester; three credits*

MGMT 412. HUMAN RESOURCES MANAGEMENT

Personnel administration principles and philosophy. Man as employer and employee. Major topics include recruiting, hiring, training, promotion, health and welfare, and employee safety. In addition, the legal environment surrounding human resource issues will be studied. Prerequisite: MGMT 352. Offered in the Fall semester. *One semester; three credits*

MGMT 430 ETHICAL DECISION MAKING IN BUSINESS

This course is an applied course in business and managerial ethics. Various ethical theories will be applied to contemporary business situations. In addition, the course will focus on raising the awareness of the student to ethical issues, principles and arguments by examining the social and corporate environment in which they will be living and working. Prerequisite: PHIL 220 (or equivalent), MGMT 352, MKTG 311 and FIN 327. Offered in both the Fall and Spring Semesters. *One semester; three credits*

MGMT 450. ORGANIZATION STAFFING AND DEVELOPMENT

Addresses the organizational staffing cycle from job analysis through recruitment, selection, employee development, career planning, retirement and downsizing. Legal issues pertaining to staffing are covered as well as the training process, including learning theory and technology as applied to training. Prerequisite: MGMT 412. Offered as needed. *One semester; three credits*

MGMT 451. ORGANIZATIONAL REWARD SYSTEMS

Analyzes the components of reward systems, including base pay, incentive pay, and employee benefits. Development of pay plans, performance appraisal systems, various types of individual, group and organization-wide incentive programs, and outlines the various types of employee benefits. Prerequisite: MGMT 412. Offered as needed. *One semester three credits*

MGMT 452. EMPLOYEE AND LABOR RELATIONS/EMPLOYMENT AND LABOR LAW

Evolution of and current practices related to effective workplace relations between employer and employee in both union and non-union environments. The establishment and maintenance of a safe, healthy, diverse and secure workplace. Legal issues related to Human Resources, including EEO, FLSA, ADA, ERISA, and federal and state labor laws are explored. Prerequisite: MGMT 412. Offered as needed. *One semester three credits*

MGMT 453. SEMINAR IN GLOBAL BUSINESS

This course requires an international trip which provides students an opportunity to explore firsthand the international dimensions of business, to identify and pursue strategic issues in international business and trade, and to gain an awareness of how the cultural, economic, political, and legal environments influence business practices. Students study and conduct research on the country and prepare a report detailing business and cultural practices, political and economic environments. Other business and cultural research/analysis will be based on the emphasis of the course. Students bear the costs of airfare, lodging and meals. Prerequisite: ECON 214 and ECON 215. Offered as needed. *One semester; three credits*

MGMT 455. PRACTICUM AND PROJECT IN MANAGEMENT

This course is designed to explore and put to practical use the entire body of knowledge gained in previous MGMT courses. Project Management concepts will be covered, including use of project management tools. A comprehensive project will assess the student's ability to apply classroom principles and skills to specific management problems. Prerequisite: Permission of the Instructor. Offered in both the Fall and Spring semesters. *One semester; three credits*

MGMT 460-466. SPECIAL TOPICS IN MANAGEMENT

These courses are designed to permit intensive study into topics of special interest and timeliness in the area of Management. Prerequisite: MGMT 352. Offered as needed *One semester; three credits*

MGMT 490. SEMINAR IN LEADERSHIP

Readings, critical evaluation and analysis of selected topics in current management literature, research and practice. Individual and group analyses and presentations of assigned topics. Major research project to be presented to faculty and senior students. Prerequisites: MGMT 352, MKTG 311, and FIN 327. Offered in the Spring semester. *One semester; three credits*

MGMT 498. BUSINESS POLICY/STRATEGIC PLANNING

This course will consist of a series of lectures and practice exercises in research methods and case analysis. The study of corporate and business level policy and strategy making is developed using a top-management perspective. A research report along with case analysis papers will be prepared by each member of the class. In-class case assignments will be used for discussion and evaluation. Prerequisites: FIN 327; MGMT 352; MKTG 311. Offered in both the Fall and Spring semesters. *One semester; three credits*

■ MANAGEMENT INFORMATION SYSTEMS COURSES

Requirements for the concentration are found on Page 66.

MIS 153. INTRODUCTION TO COMPUTER BUSINESS APPLICATIONS (Formerly ITM 153)

This course is intended to provide to students a working knowledge of modern computation and business information processing via the common tools of word processing, presentation, spreadsheet, and data base management. Information coverage will include text, numerical, graphical, and functional representations via common business applications such as break-even analysis, present value determination, depreciation schedules, loan amortization tables, etc. Depending upon the course section (day or evening, MWF or TT), all or a portion of this course may be offered in a distance education format. Offered in the Fall and Spring. *One semester; three credits*

MIS 231. INTRODUCTION TO MIS (Formerly ITM 231)

This purpose of this course is to introduce the fundamentals of Management Information Systems. This course discusses components of information systems (hardware, software, databases, and data communication technologies) and uses examples and cases to demonstrate important uses of information systems in organizations. Topics include transaction processing, e-commerce, supply chain systems, customer relationship management systems, marketing information systems, decision support systems, knowledge management systems, and ethics and security issues. Depending upon the course section (day or evening, MWF or TT), all or a portion of this course may be offered in a distance education format. Prerequisite: MIS 153 (or passing of challenge exam) and MATH 105. Offered in the Fall and Spring. *One semester; three credits*

MIS 271- 279. MIS SEMINARS

Through contractual arrangements with companies, government agencies, and/or organizations, the School of Business will offer courses on selected MIS topics. Students may take up to nine seminars as long as titles and content are clearly distinctive. Credit awarded may be used as free electives hours only. Enrollment is limited and requires permission of the Director of the associated program or Dean of the School of Business. Offered as needed. *One semester; one, two, or three credits*

MIS 295. DATA COMMUNICATION, NETWORKS, AND CYBER SECURITY

This purpose of this course is to introduce the fundamentals of systems software, telecommunications, and network designs. It covers basic telecommunications concepts such as data transmission methods, signals encoding, transmission media characteristics, and the hybrid TCP/IP-OSI architecture, Ethernet LAN's, wireless LAN's and wide area networks as well as cyber security issues and standards. Prerequisite: MIS 231 and Math 105. Offered as needed. *One semester; three credits*

MIS 351. SYSTEMS ANALYSIS AND DESIGN (Formerly ITM 351)

This course presents methods for analyzing and designing business IT systems. The course emphasizes the Systems Development Life Cycle (SDLC) methodology. Classical and object oriented methods and tools are applied to business analysis and problem solving situations with adjustments as required to today's business environment. Included are requirements analysis and use case analysis, process models, data models, consistency of process and data models, justification and costing techniques, conversion and implementation procedures. A case study is employed to provide a practical "hands-on" approach. Prerequisite: MIS 231 or permission of instructor. Offered as needed. *One semester; three credits*

MIS 400/401. MIS INTERNSHIP

Under the supervision of a faculty member, students work on a real world project ("on-the-job-training") either for a company, for CBU, or for a charity organization. Procedures and deliverables are defined on the School of Business Web site. Special CBU approval forms must be completed. A student may take two internships, but only one per organization. Prerequisite: MIS 231, MIS 295, MIS 351. Offered as needed. *One semester; three credits*

MIS 455. INFORMATION SYSTEMS PRACTICUM AND PROJECT MANAGEMENT (Formerly ITM 455)

This course is designed to explore and put to practical use the entire body of knowledge gained in previous MIS courses. Topics will principally focus upon the managerial aspects of effective information technology deployment. Project Management concepts will be covered, including use of project management tools. A comprehensive project will test student's ability to apply technology and business skills to develop a workable, manageable, and effective information systems solution. Prerequisite: MIS 231, MIS 295, MIS 351, MIS 470, MIS 471 or permission of instructor. Offered as needed. *One semester; three credits*

MIS 460-466 SPECIAL TOPICS IN MIS

Course designed to permit intensive study into topics of special interest and timeliness in the area of Management Information Systems Management. Prerequisites depend upon topics and approval of instructor. Offered as needed. *One semester; three credits*

MIS 470. APPLICATION AND WEB DEVELOPMENT (Formerly ITM 470)

This course familiarizes students with the modern web based application development and programming environment. It also teaches students the basics of key Internet technologies (HTML, JavaScript, Dynamic HTML, CSS, ASP, PHP, AJAX, and XML), and trains students into the application and usage of key Internet tools. Upon completion of this course, students will be able to create and maintain modern advanced dynamic Web sites. Prerequisites: MIS 231, MIS 351, MIS 471, or permission of instructor. Offered as needed. *One semester; three credits*

MIS 471. DATA BASE DESIGN AND BUSINESS INTELLIGENCE (Formerly ITM 471)

The course presents database design and management and emphasizes the relational model and Structured Query Language. Topics include database models, query languages, query optimization, database implementation, distributed processing, data mining, and business intelligence. Prerequisite: MIS 153 and MIS 231, or permission of the instructor. Offered as needed. *One semester; three credits*

■ MARKETING COURSES

Requirements for the concentration are found on Page 66.

MKTG 311. PRINCIPLES OF MARKETING

Addresses the marketing-management functions directed toward organizational customers and prospects who buy goods and services necessary for the operation of their own businesses. Concepts of purchasing strategy, material management, and organizational buying behavior are integrated into electronic developments, strategic alliances and partnerships, and just in time. Prerequisite: Junior standing and ECON 214. Offered in both the Fall and Spring semesters. *One semester; three credits*

MKTG 324. MARKETING RESEARCH AND INTELLIGENCE

The study of techniques and principles for systematically monitoring environments-collecting, recording, analyzing, and interpreting data that can aid decision makers who are involved with marketing of goods, services, or ideas. The application of intelligence and research findings in the

development of marketing strategy is emphasized. The class employs research cases and projects to enhance students' practical research and intelligence skills. Prerequisite: MKTG 311 and a grade of "C" or better in STAT 222. Offered in the Spring semester. *One semester; three credits*

MKTG 334. MARKET AND CONSUMER BEHAVIOR

This investigation into consumer behavior brings together relevant research and applications from the behavioral sciences and other fields of marketing. The course will evaluate the decision process that individuals use as they obtain and use goods and services. The course will investigate the factors employed to identify and measure market segments. Emphasis is placed on an analysis of consumer behavior as a basis for marketing strategy. Prerequisite: MKTG 311. Offered in the Fall semester. *One semester; three credits*

MKTG 338. SELLING AND SALES MANAGEMENT

This course will provide a detailed investigation of that portion of the Marketing Mix pertaining to promotion with specific emphasis on Personal Selling. While some discussion will be given to sales techniques, the major emphasis will be concerned with the management of the outside sales force and the activities of that sales force. Prerequisite: MKTG 311. Offered in both the Fall and Spring semesters. *One semester; three credits*

MKTG 348. BUSINESS TO BUSINESS MARKETING

Addresses the marketing functions directed toward organizational customers and prospects who buy goods and services necessary for the operation of their own businesses. Concepts of purchasing strategy, material management and organizational buying behavior are integrated into electronic developments, strategic alliances and partnerships, and JIT. Prerequisite: MKTG 311. Offered in both the Fall and Spring semesters. *One semester; three credits*

MKTG 400. MARKETING INTERNSHIP (Formerly BUS 400)

Under the supervision of a faculty member from the appropriate department, students in the School of Business, after receiving the approval of the faculty, are placed in the offices of cooperating firms to receive on-the-job training under the supervision of members of the firm. Credit is granted upon acceptance of periodic reports and a final summary report of work done verified by the authorized supervisor and the instructor. *Pass/Fail Grading. One semester; three credits*

MKTG 411. MARKETING POLICY AND STRATEGY

This course is aimed at bridging the gap between classroom training and the business/marketing environment. Case studies are developed to address marketing opportunities and problems. A methodology is developed to evaluate marketing situations within a logical and practical framework. This framework is supported by sound marketing theories and concepts. Instruction by the case method requires high participation by students. Emphasis is placed on the development and implementation of marketing strategies to accomplish missions of organizations. Prerequisite: MKTG 311 and 324. Offered in the Spring semester. *One semester; three credits*

MKTG 418. GLOBAL SUPPLY CHAIN MANAGEMENT.

An introduction to global strategy and a description of the role of supply chain management. Topics include: understanding global supply chains and supply chain management; key issues in global supply chain management; global logistics management; extending global supply chains; and global purchasing and supply management. Prerequisite: MKTG 311. Offered in both the Fall and Spring semesters. *One semester; three credit hours*

MKTG 433. PROMOTIONAL STRATEGY

This course is designed to provide the student with the communication processes used in marketing. The course builds on the base of an understanding of consumer behavior by treating the fields of advertising, sales promotion, personal selling, reseller stimulation, and other communications skills as part of the overall promotional mix. The course develops fundamental considerations as a background to a focus on managerial issues and problems. The various communication methods are treated as variables to communicate the want satisfying attributes of products and services. Prerequisite: MKTG 311. Offered in both the Fall and Spring semesters. *One semester; three credits*

MKTG 438. INTERNATIONAL MARKETING.

This course provides the framework for marketing on a global basis. Topics include: globalization and implications for marketing managers; international market entry decisions; partnering and alliances; pricing, product policy, and branding in the global market; standardization versus adaptation decisions in international marketing; and marketing research applications in global marketing. Prerequisite: MKTG 311 and MGMT 320. Offered in the Fall semester. *One semester; three credit hours*

MKTG 440. ENTREPRENEURSHIP

This course provides a foundation for an understanding of the variables and functions in the start-up of new business ventures. More and more businesses are being started, and the opportunities are there for such actions. The development of strategic plans and feasibility studies are essential for successful introduction of new businesses. It includes the study of theory, while developing a practical knowledge of the marketing management system and key concepts for new ventures. This course is designed to enable new enterprises a stronger opportunity to achieve a higher quality of success. Prerequisites: MGMT 352 and MKTG 311. Offered in the Spring semester. *One semester; three credits*

MKTG 455. PRACTICUM AND PROJECT IN MARKETING

This course is designed to explore and put to practical use the entire body of knowledge gained in previous MKTG courses. Project Management concepts will be covered, including use of project management tools. A comprehensive project will assess the student's ability to apply classroom principles and skills to specific marketing problems. Prerequisite: Permission of the Instructor. Offered in the Fall and Spring semesters. *One semester; three credits*

MKTG 460-466. SPECIAL TOPICS IN MARKETING

Courses are designed to permit intensive study into topics of special interest and timeliness in the area of marketing. Prerequisite: MKTG 311. Offered as needed. *One semester; three credits*

■ MATHEMATICS COURSES

Requirements for the degree are found on Page 98-99.

Note: Most Mathematics courses require the use of a graphing calculator.

MATH 103. FUNDAMENTALS OF ALGEBRA

The course is designed to give the student fundamental quantitative and algebraic skills needed in other mathematics and science courses. Topics include: equations and inequalities, absolute value, linear systems, exponents, factoring, rational expressions, rational exponents, quadratic equations, and functions. The course does not supply any portion of the mathematics credits required in any CBU degree program. Students may not receive credit for MATH 103 after completing any mathematics course numbered above 103. Prerequisite: One year of high school algebra and passing a placement exam. Offered in the Fall and Spring. *One semester; three credits*

MATH 105. FINITE MATH

This course contains introductory topics in mathematics for students in arts and business. Topics include lines, linear systems, matrices, linear programming, functions, polynomial, exponential and logarithmic models, and financial math. Prerequisites: MATH 103, ALG 120, or passing a placement exam. See Math Center Web page. Offered in the Fall and Spring. *One semester; three credits*

MATH 106. APPLIED MATH WITH AN INTRODUCTION TO CALCULUS

This course contains introductory topics in mathematics for students in arts and business. Topics include: functions; graphs; linear, polynomial, rational, exponential, and logarithmic models; introduction to differential and integral calculus. A student can receive credit for only one of MATH 106 or MATH 131. Prerequisite: MATH 105 or MATH 117. Offered in the Fall and Spring. *One semester; three credits*

MATH 107. FUNCTIONS

The course covers the basic concepts of college algebra, polynomial, rational, exponential and logarithmic functions as well as their graphs. The course emphasizes a comprehensive understanding of the language and uses of functions. Through the study of functions and their inverses, the course stresses algebraic skills and problem solving. Prerequisite: ALG 120 or Math 103 or equivalent. *Two credits*

MATH 110. TRIGONOMETRY

The goals of the course are to teach the student basic concepts of trigonometry and trigonometric functions and its applications. Topics include: Review of functions and their inverses, right triangle trigonometry; trigonometric functions and their inverses; trigonometric identities; Law of Sines and Cosines. The course requires a graphing calculator and stresses problem solving. A grade of "C" or better in this course is required to proceed to Math 131. A student can receive credits for only one of Math 110 or Math 117 or Math 129. Prerequisite: Math 107 or equivalent. *Two credits*

MATH 117. PRECALCULUS

The goals of the course are to teach the student the basic concepts of college algebra, linear equations, quadratic equations, word problems, functions, graphs, exponential and logarithmic functions, trigonometry and trigonometric functions. The course stresses problem solving by the student with the use of a graphing calculator. A student can receive credit for only one of MATH 110, 117 or 129. A grade of "C" or better in this course is required to proceed to MATH 131. Prerequisite: MATH 103, 107 or ALG 120 with a grade of "C" or better or equivalent. Offered in the Fall and Spring. *One semester; three credits*

MATH 121. STATISTICS INTRODUCTION

This is an independent study statistics module that includes percentages, measures of central tendency, dispersion, graphic representation of data, and estimation of parameters. Successful completion fulfills the statistics outcome of the General Education Requirements. Pass/Fail Grading. *One semester; zero credits*

MATH 129. FUNCTIONS AND ENGINEERING CALCULUS I

The goals of this course are to teach the student basic concepts of college algebra and trigonometry and important concepts of calculus and its applications. Topics include: linear and quadratic equations; algebraic, exponential, and logarithmic functions and their graphs; right triangle trigonometry; trigonometric functions; the derivative and its interpretations; the definite integral and its interpretations; the Fundamental Theorem of Calculus; rules of differentiation and integration; and applications of derivatives and integrals. The course requires a graphing calculator and stresses problem solving. A student can receive credit for only one of MATH 110, 117 or 129 and for only one of MATH 129 or MATH 131. Six lectures and two recitation periods per week. Prerequisite: MATH 103 or 107 or equivalent. Offered in the Fall. *One semester; six credits*

MATH 131. CALCULUS I

The goals of the course are to teach the student important concepts of calculus and its applications. Topics include functions, the derivative and its interpretations, the definite integral and its interpretations, the Fundamental Theorem of Calculus, rules of differentiation, applications of the derivative and antiderivatives. Three lectures and one laboratory period per week. A student can receive credit for only one of MATH 129 or 131. Prerequisite: MATH 110 with a grade of "C" or better, or MATH 117 with a grade of "C" or better. This prerequisite is waived for a student who passes a departmental placement test. A grade of "C" or better in this course is required to proceed to MATH 132. Offered in the Fall and Spring. *One semester; three credits*

MATH 132. CALCULUS II

The goals of the course are to teach the student additional important concepts of calculus begun in MATH 131. Topics include techniques of integration, applications of integration, differential equations and modeling, approximations using Taylor and Fourier polynomials and series. Prerequisite: MATH 129 or MATH 131 with a grade of "C" or better. Offered in the Fall and Spring. *One semester; three credits*

MATH 141. INTRODUCTION TO DISCRETE MATHEMATICS

This course considers a variety of discrete mathematical themes and subjects. These themes include problem solving, abstraction, representation, mathematical reasoning and proof, recursion, induction, modeling and synthesis. Topics include logic, graphs, sets, algorithms and combinatorics.

Prerequisite: MATH 105 or 106 or 117 or 129 or 131. Offered in odd numbered Spring semesters. *One semester; three credits*

MATH 151. NUMERICAL CONCEPTS FOR ELEMENTARY TEACHERS

This course includes concepts essential to mathematics for elementary school teaching candidates. Topics include: set theory, numbers and numeration, number theory, rational numbers, and problem solving. This course does not meet the CBU General Education Math requirement. Prerequisite: ALG 120 or equivalent. Offered in the Spring semester. *One semester; three credits*

MATH 152. MATH TOPICS FOR ELEMENTARY TEACHERS

This course includes concepts essential to mathematics for elementary school teaching candidates. Topics include: informal geometry, measurement, problem solving, descriptive statistics, and elementary probability. This course does not meet the CBU General Education Math requirement. Prerequisite: ALG 120 or equivalent. Offered in the Fall semester. *One semester; three credits*

MATH 162. HEALTH SCIENCE APPLICATIONS OF ALGEBRA AND STATISTICS

The course uses models appropriate to the health sciences to motivate the study of algebra and statistics. Topics are chosen from algebraic expressions, symbol manipulation, linear and quadratic equations, descriptive statistics, exploratory data analysis, the normal distribution, functions, graphs, and linear, polynomial, rational, exponential, and logarithmic models. The course stresses interpretation of the mathematical model in its diverse applications. Prerequisite: MATH 103 or equivalent and admission to RN to BSN program. *One semester; three credits*

MATH 201. APPLIED STATISTICS

The course concerns the use of statistical methodology in planning, presentation, analysis and interpretation of scientific experiments and field observations. Topics are chosen from elements of probability and statistical inference, including estimates of parameters, confidence intervals, tests of hypotheses for quantitative and qualitative observations, correlation, nonparametric methods. Its goal is to allow science majors to analyze real data in a correct statistical manner. Offered in the Spring semester. Prerequisite: MATH 106, 129 or 131. *One semester; three credits*

MATH 231. DIFFERENTIAL EQUATIONS

This course is an introduction to the concepts and methods of ordinary differential equations. Topics include: first-order equations, elementary numerical methods, qualitative analysis, second-order homogeneous linear equations, the methods of undetermined coefficients and variation of parameters for nonhomogeneous equations, Laplace transforms, and models in science and engineering. Prerequisite: MATH 132. Offered in the Fall and Spring semesters. *One semester; three credits*

MATH 232. CALCULUS III

Algebra of vectors in a plane and in space; the calculus of vectors; vector functions; basic concepts of multivariable calculus; partial derivatives; multiple integrals. Prerequisite: MATH 231. Offered in the Fall and Spring. *One semester; three credits*

MATH 301. GEOMETRY AND HISTORY OF MATHEMATICS

The course contains topics in geometry and the history of mathematics. Topics include Euclidean and non-Euclidean geometry, mathematical structures and the historical development of mathematical concepts. Prerequisite: MATH 132. Offered in odd numbered Spring semesters. *One semester; three credits*

MATH 308. STATISTICS

The course considers statistical methods with applications in engineering and science. Topics are selected from an introduction to probability, descriptive statistics, sampling methods, design of statistical experiments, concepts of hypothesis testing and confidence intervals, correlation, linear regression and analysis of variance. Offered in the Spring semester. Prerequisite: MATH 232. *One semester; three credits*

MATH 309. PROBABILITY

The course considers fundamental topics in probability with applications in engineering and science. Topics are selected from: basic concepts in probability, random variables, expectation, variance, covariance, moment generating functions, common distributions such as binomial, hypergeometric, Poisson, geometric, uniform, normal, exponential, chi-square, T and F distributions, probability models, central limit theorem and functions of a random variable, bivariate, marginal, and conditional distributions. Offered in the Fall semester. Prerequisite: MATH 232. *One semester; three credits*

MATH 329. APPLIED NUMERICAL ANALYSIS

The course teaches the student the basic techniques of modeling and numerical computation with emphasis on applications and the use of numerical software. Topics will be chosen from the following: modeling of physical systems with algebraic, differential and integral techniques; algorithms for approximation; fitting functions to data; algorithms for the solution of linear systems and for finding eigenvalues and eigenvectors; algorithms for the solution of differential and integral equations; Fourier transforms. Offered in the Fall semester. Prerequisite: MATH 232 and a computer language. *One semester; three credits*

MATH 401. LINEAR ALGEBRA

This course contains an introduction to the basic concepts of linear algebra; namely Gaussian elimination, the theory of simultaneous linear equations, determinants, vector spaces, eigenvalues, eigenvectors and linear transformations. The course includes applications of linear algebra to selected topics from engineering, biology, and business. Prerequisite: MATH 232. Offered in odd numbered Fall semesters. *One semester; three credits*

MATH 402. ABSTRACT ALGEBRA

The course contains an introduction to some basic concepts of abstract algebra, namely groups, rings, and fields and includes applications. Prerequisite: MATH 232. Offered in the Spring semester of even numbered years. *One semester; three credits*

MATH 405. DISCRETE MATHEMATICS

This course is an introduction to graph theory and combinatorics. The topics will be chosen from the following: the basic properties of graphs and digraphs, graphs as models, Eulerian and Hamiltonian circuits, graph coloring, trees, network algorithms, generating functions, and recurrence

relations. Prerequisite: MATH 231. Offered in the Spring semester. *One semester; three credits*

MATH 413. COMPLEX ANALYSIS (Formerly MATH 403)

This course concerns itself with the rudiments and techniques of complex analysis. Topics that are covered include: complex sequences, the derivative of a complex function, the Cauchy-Riemann equations, integration in the complex plane and the Cauchy-Goursat theorem, Cauchy's integral formula, Morera's theorem, Taylor and Laurent series, residue theory, and the evaluation of definite integrals. Prerequisite: MATH 232. Offered in the Fall semester of even numbered years. *One semester; three credits*

MATH 414. REAL ANALYSIS (Formerly MATH 302)

The course develops the theory of calculus. It stresses the proofs of the theorems for functions of one variable. Topics include sequences, series, functions, limits, continuity, differentiation and integration. Prerequisite: MATH 232. Offered in the Spring semester of odd numbered years. *One semester; three credits*

MATH 470-479. TOPICS IN MATHEMATICS

This course is designed to meet the current needs of the students and to express the particular interests of the instructor. Prerequisites: Junior standing, MATH 232 and Permission of instructor. *One semester; one to three credits*

MATH 481-482. SENIOR SEMINAR I AND II

The student conducts an independent investigation in some field of mathematics. The course requires both written and oral reports. In addition, the student must pass a comprehensive assessment test in mathematics. Prerequisites: Junior or Senior standing and approval of the department head. Offered in sequence in the Fall and Spring. *One semester each; one and two credits respectively.*

■ MECHANICAL ENGINEERING COURSES

Requirements for the degree are found on Page 78.

ME 112. SCIENTIFIC PROGRAMMING

This course covers fundamental programming techniques used to solve engineering problems that require repetitive or iterative calculations. Emphasis is placed on writing structured, portable, efficient, and understandable MATLAB and Excel programs. Corequisite: MATH 131. Offered in the Fall semester. *One semester; three credits*

ME 121. SOLIDS MODELING

Emphasis on visual aspects of engineering communications, expression of ideas, developing spatial concepts as related to design. Design is taught using 3-D modeling and parametric design. CAD applications. Offered in the Fall and Spring. *One semester; three credits*

ME 201. MANUFACTURING PROCESSES

Production of common engineering materials. Heat treatment theory and processes. Study of machining, casting, metal forming, fabrication of plastics, ceramics, composites, welding, inspection, material testing, automation. Plant tours. Reports. Demonstrations. Two lectures and one three-hour lab each week. Prerequisite: ME 121. Offered in the Spring semester. *One semester; three credits*

ME 202. DYNAMICS

Kinematics and kinetics of particles and rigid bodies in two dimensions. Force-mass-acceleration, work-energy, and impulse-momentum methods will be covered. Prerequisites: CE 201. Offered in the Fall and Spring. *One semester; three credits*

ME 301. ENGINEERING INSTRUMENTATION LABORATORY

A laboratory course designed to instruct the student in the theory and use of various engineering instruments and transducers. Emphasis is placed on appropriate error analysis in the reduction, analysis, and reporting of data. Technical report preparation is emphasized. Two lecture periods and one laboratory period of three hours. (Same as ECE 201) Prerequisite: ECE 221. Offered in the Fall semester. *One semester; two credits*

ME 302. ENERGY SYSTEMS LABORATORY

Experimental study of basic fluid flow and heat transfer phenomena, flow-measurements, impulse turbine, centrifugal pump, fluid circuit systems, electrical analogies, basic heat conduction experiments, free and forced convection, thermal radiation, temperature measurements, subsonic wind tunnel model studies, lift and drag measurements. Technical report preparation and presentation is emphasized. One laboratory period of three hours and lecture. Prerequisites: ME 301, 313. Corequisite: ME 306. Offered in the Spring semester. *One semester; two credits*

ME 305. ENGINEERING THERMODYNAMICS I

Fundamental laws and concepts of the macroscopic approach to the thermodynamics of pure materials. Properties of pure materials from tables, charts and ideal-gas equation. Heat and work. First and second law analysis of open and closed systems. Introduction to heat engines and heat pumps. (Same as CHE 231) Prerequisites: MATH 132 and CHEM 113 or 115. Corequisite: PHYS 150. Offered in the Fall and Spring. *One semester; three credits*

ME 306. HEAT TRANSFER

An introductory treatment of conduction, convection, and radiation heat transfer. Analysis of steady and unsteady heat conduction in simple geometries, boundary layer analysis and empirical correlations for convection, and basic theory of radiation heat transfer. Prerequisite: ME 313. Offered in the Spring semester. *One semester; three credits*

ME 312. MECHANICS OF DEFORMABLE SOLIDS

Axial load, shear, and bending moment diagrams. Differential equations of beams. Study of stresses due to axial, bending, torsional loads, and combined loading. Mohr's circle of stress. Design techniques, Column design equations. Prerequisite: CE 201. Offered in the Fall semester. *One semester; three credits*

ME 313. FLUID MECHANICS

Mechanical and thermodynamic properties of fluids. Theory of fluid statics. Conservation laws in integral and differential form. Dimensional analysis and dimensionless groups. Dynamics of frictionless incompressible flow. Modified Bernoulli equation. Flow of viscous fluids. Pipe flow theory. Empirical formulas and charts. Introduction to boundary layer theory, turbulent flow, and one-dimensional steady compressible flow. Prerequisites: MATH 232 and ME 202, 305 (or CHE 231). Offered in the Fall semester. *One semester; three credits*

ME 314. ENGINEERING ECONOMY (Formerly ME 314 Engineering Factors in Design)

Fundamentals of engineering economy. Cost concepts. Time value of money and equivalence. Economic analysis of alternatives. Depreciation and after-tax analysis. Effects of inflation on economic analysis. Currency exchange rates. Effects of global economic issues on engineering decision making. Prerequisite: MATH 132. (Same as CHE 314, ECE 314, CE 314) *One semester; three credits*

ME 316. ENGINEERING THERMODYNAMICS II

Concepts of reversibility, irreversibility, and availability. Power and refrigeration systems. First Law analysis of gas-vapor mixtures. Introduction to psychrometry. Thermochemical reactions including combustion processes, fuel properties, and equilibrium composition. Prerequisite ME 305 or CHE 231. Offered in the Fall semester. *One semester; three credits*

ME 317. KINEMATICS

A study of relative motion and geometry of machine parts and mechanisms without reference to force or mass. Graphical and analytical solutions for the displacement, velocity, and acceleration of planar mechanisms. General case of acceleration including Coriolis component. Computer programming and numerical techniques applied to velocity and acceleration analysis of cycles. Prerequisites: ME 112, 121, 202. Offered in the Fall semester. *One semester; three credits*

ME 318. DYNAMICS OF MACHINES

The dynamic analysis of machine parts by use of the principles of linear and angular momentum and the work-energy relationships. Graphical and analytical methods. Analysis and balancing of shaking forces in machines, flywheel analysis, basic gear analysis, gyroscopic forces in machines. Three lectures each week. Prerequisite: ME 317. Offered in the Spring semester. *One semester; three credits*

ME 319. PRINCIPLES OF PACKAGING

(Same as CH E / PKG 319). *One semester; three credits*

ME 320. DISTRIBUTION/MEDICAL DEVICE PACKAGING

(Same as CH E/ PKG 320). *One semester; three credits*

ME 400. THE COMPLETE ENGINEER

This course deals with a wide array of issues facing the practicing engineer. Topics include: engineering ethics; regulatory issues; health, safety, and environmental factors; reliability, maintainability, producibility, sustainability; and the context of engineering in the enterprise, in society, and as part of the global economy. (Same as CH E 400, ECE 400, and CE 400). Prerequisite: Permission of the department and MATH 232. *One semester; three credits*

ME 401. MECHANICAL SYSTEMS LABORATORY

Laboratory experiments are performed in stress analysis and experimental mechanics on a project team basis. Emphasis is placed on experimental technique, data analysis and report preparation and presentation. Each student also prepares a state of the art report on a topic selected by the department faculty. Prerequisite: ME 301. Corequisite: ME 420. Offered in the Fall semester. *One semester; two credits*

ME 407-408. MECHANICAL ENGINEERING PROJECT

Industry sponsored projects are initiated early in the first semester of the student's senior year and are completed and formally presented in a report (written and oral) to the sponsor, faculty and students in the following semester. Prerequisite: Permission of the department, ME 407 prerequisite for ME 408. Taken in sequence in the Fall and Spring. *Two semesters; six credits*

ME 416. THERMAL ENVIRONMENTAL ENGINEERING

Refrigeration, vapor compression and absorption. Psychrometrics, basic air-conditioning processes, physiological effects, heat load calculations. Air conditioning system design will be emphasized. Three lectures each week. Prerequisites: ME 306, 316. *One semester; three credits*

ME 419. MECHANICAL VIBRATIONS

Fundamentals of vibration theory applied to mechanical systems. Un-damped and damped, single and multiple degree of freedom, vibrating systems. Steady state analysis of free and forced vibrations; critical speeds and balancing, vibration isolation, instrumentation. Three lectures each week. Prerequisites: ME 202 and MATH 231. *One semester; three credits*

ME 420. MACHINE DESIGN

An integrated treatment of the design of mechanical systems combining static and dynamic load analysis, stress analysis, material selection, and failure analysis. Includes many advanced topics in stress analysis. Three lectures each week. Prerequisites: ME 312 and 318. Corequisite: ME 401. Offered in the Fall semester. *One semester; three credits*

ME 421. THERMAL SYSTEMS ANALYSIS AND DESIGN

An integrated treatment of the analysis and design of thermal systems. Primarily concerned with industrial thermal processes, cycles and associated equipment. Prerequisite: ME 306. Offered in the Fall semester. *One semester; three credits*

ME 422. CONTROL SYSTEMS ENGINEERING

Analysis and design of linear control systems. Transfer functions, block diagrams, and state-variable representation. Feedback concepts and

stability analysis in both the frequency and time domain. Design by Root locus, Bode plots, and State variable methods. Emphasis on use of computational software for complex cases. (Same as ECE 322 Linear Control Systems) Prerequisites: MATH 231, ME 202 and ECE 221. Offered in the Spring semester. *One semester; three credits*

ME 428. MATERIALS SCIENCE

Material classification, behavior, properties and selection. The internal structures of metals, ceramics, polymers and electronic materials are examined to develop understanding of their mechanical, physical, chemical, electrical properties. Develop some insight to controlling of properties and behavior of materials by manipulating internal structures. (Same as CHE 328) Prerequisites: CHEM 113 or CHEM 115 and Junior standing. *One semester; three credits*

ME 429. SELECTION OF MATERIALS

Importance of materials selection as part of the design process will be discussed. Fundamental relationships that govern the properties of materials will be examined and used to optimize the selection of engineering materials. Materials covered will include metals, plastics, ceramics, and composites. Prerequisite: ME 312. *One semester; three credits*

ME 432. PRINCIPLES OF GAS DYNAMICS

Concepts of compressible flow. Steady streamtube flow. Supersonic flow and shock waves. Prandtl-Meyer flow. Supersonic nozzle and diffuser flow. Fanno and Rayleigh flow. Unsteady one-dimensional flow. Prerequisite: ME 313. *One semester; three credits*

ME 435. INTERMEDIATE MANUFACTURING

Introduction to advanced parametric computer-aided design and manufacturing (CADM) techniques. Students learn to design parts and assemblies using tools that enable parametric design. A design project is carried through from "blank screen" to production of computer numerical control (CNC) code and fabrication. Also provided is an introduction to structural and thermal analysis tools that are integrated with the CADM program. An oral report on advanced manufacturing technology is required. Occasional field trips to local manufacturing facilities. Prerequisites: ME 201 and permission of instructor. *One semester; three credits*

ME 442. INTERNAL COMBUSTION ENGINES

Principles of spark ignition and compression engines. Both two and four-stroke engines are considered. Fuel combustion, cooling, and turbocharging effects. Experimental methods of determining engine performance. Guest lecturers and plant tours. Prerequisites: ME 306, 316. *One semester; three credits*

ME 495. INTERNSHIP IN MECHANICAL ENGINEERING

Students majoring in mechanical engineering may be placed in the engineering offices of contracted firms to receive job training under the supervision of qualified engineers. Tasks completed as part of the internship must be approved by an authorized work supervisor. Credit is granted upon faculty approval of periodic review reports and a final summary report describing the work performed. Minimum time 200 hours. Prerequisites: Junior standing and Permission of the department. *Pass/Fail Grading. One semester; three credits*

ME 496-498. TOPICS IN MECHANICAL ENGINEERING

Lectures, readings, discussions and research on special areas and advancements in mechanical engineering. Problems or projects of an interdisciplinary nature are encouraged. A written report may be required. Prerequisites: Senior standing and Approval of department. *One semester; one to three credits*

■ MUSIC COURSES

MUSC 111. MUSIC APPRECIATION

Open to all students. Required for all music minors. An introduction to perceptive music listening through study of melody, harmony, rhythm, texture, etc. Extensive listening to characteristic selections and major forms from different periods of music. *One semester; three credits*

■ NATURAL SCIENCE COURSES

Requirements for the degree are found on Page 100.

NSCI 111. INTRODUCTION TO ASTRONOMY

The course introduces non-science students to astronomy. It includes naked-eye astronomy and a brief history of astronomy, the present-day tools of the astronomer, the solar system, the sun and stars, and finally the galaxy, the universe, and extraterrestrial life. Three lectures per week. Prerequisite: MATH 105 or higher. Corequisite: NSCI 111L. Offered in the Fall semester. *One semester; three credits*

NSCI 111L. INTRODUCTION TO ASTRONOMY LAB

Laboratory to accompany NSCI 111. Corequisite: NSCI 111. Offered in the Fall semester. *One semester; one credit*

NSCI 115. SURVEY OF SCIENCE: HISTORY AND EXPERIMENTS

This course is intended mainly for liberal arts and business students. It will combine readings and experiments using selections from the classical writings from the Greeks to the 20th century. Authors who will be read in part include Hippocrates, Copernicus, Newton, and Darwin. Prerequisite: MATH 105 or higher. Corequisite: NSCI 115L. Offered in the Spring semester. *One semester; three credits*

NSCI 115L. SURVEY OF SCIENCE: HISTORY AND EXPERIMENTS LAB

Laboratory to accompany NSCI 115. Corequisite: NSCI 115. Offered in the Spring semester. *One semester; one credit*

NSCI 122. THE NATURE OF LIGHT

An introduction to the field of optics for non-science majors. The question for the course is "What is light?" Different theories that model light as

rays, waves, and photons are discussed to explain phenomena ranging from the formation of rainbows and mirages to the operation of lenses, lasers, holograms, and optical fibers. Prerequisite: MATH 105 or higher. Corequisite: NSCI 122L. *One semester; three credits*

NSCI 122L. THE NATURE OF LIGHT LAB

Laboratory to accompany NSCI 122. Corequisite: NSCI 122. *One semester; one credit*

NSCI 126. FORENSIC ANTHROPOLOGY

Prerequisite: MATH 105 or higher. Corequisite: NSCI 126L (Same as ANTH 126) *One semester; three credits*

NSCI 126L. FORENSIC ANTHROPOLOGY LAB

Laboratory to accompany NSCI 126. Corequisite: NSCI 126 (Same as ANTH 126L) *One semester; one credit*

NSCI 128. PHYSICAL ANTHROPOLOGY

Corequisite: NSCI 128L. (Same as ANTH 128). *One semester; three credits*

NSCI 128L. PHYSICAL ANTHROPOLOGY LAB

Laboratory to accompany NSCI 128. Corequisite: NSCI 128. (Same as ANTH 128L). *One semester; three credits*

NSCI 190-199. SPECIAL TOPICS IN NATURAL SCIENCE

Courses in different areas of the natural sciences that are not offered on a regular basis. These include courses taught by visiting faculty members with special or unique qualifications or new courses taught by existing faculty members. Prerequisite: MATH 105 or higher. Corequisite: Corresponding lab course. *One semester; three credits*

NSCI 190L-199L. SPECIAL TOPICS IN NATURAL SCIENCE LABORATORIES

Laboratories to accompany NSCI 190-199. Corequisite: Corresponding NSCI 190-199 course. *One semester; one credit*

NSCI 390-399 ADVANCED SPECIAL TOPICS

Advanced courses in different areas of the natural sciences that are not offered on a regular basis. These include courses taught by visiting faculty members with special qualifications or new courses taught by existing faculty members. Prerequisites: MATH 105 or higher and BIOL 112 Corequisite: NSCI 390L-399L. *One semester; three credits*

NSCI 390L-399L ADVANCED SPECIAL TOPICS LABORATORY

Laboratories to accompany NSCI 390-399 courses. Prerequisites: MATH 105 or higher and BIOL 112 Corequisite NSCI 390-399. *One semester; one credit.*

NSCI 410. SENIOR SEMINAR

Students will read current primary literature and will present those papers to the class each week and lead discussion. Required of Natural Science majors. Prerequisite: Senior standing. *One semester; one credit*

NSCI 411. SENIOR THESIS II

The research proposed in NSCI 410 is carried out. A formal written report and oral presentation are required. Required of Natural Science Majors. Prerequisite: NSCI 410. *One semester; one credit*

NSCI 412. SENIOR Research

Students conduct research under the mentorship of an established scientist. The students will actively participate in the design, implementation and presentation of the research project. Prerequisite: NSCI 410 and permission of the instructor. *One semester; two credits*

■ NAVY ROTC COURSES

Navy ROTC courses are offered through The University of Memphis under the instruction of The University of Memphis faculty.

■ NURSING COURSES

NURS 301. TRANSITION TO PROFESSIONAL NURSING

This course bridges the gap between basic nursing education and professional nursing practice. Current trends and issues in nursing; philosophies and theories influencing nursing; role transition; analysis of the nursing process as applied to human persons, families, groups, communities, and society to promote adaptation in today's health care environment. Corequisite: NURS 303. Pass/Fail grading. *One semester; one credit*

NURS 303. PROFESSIONAL ROLE DEVELOPMENT I

This course emphasizes the theoretical basis for nursing theory, professional development and socialization, scope of practice, and effective communication. An integration of transcultural awareness will be made through patterns of knowing in critical thinking, creativity, empathy, and personal expression. Students will have an opportunity to explore the complexities of lean healthcare and interdisciplinary team concepts while providing optimal care with specific application to the professional role of nursing. Corequisite: NURS 301. *One semester; three credits*

NURS 305. HEALTH ASSESSMENT

This course is designed to help the registered nurse develop the necessary skills to evaluate the health status of an individual by performing a complete physical, psychological, social, functional and environmental assessment relative to the aspects of health. The process of data collection, interpretation, documentation and dissemination of assessment data will be addressed. Prerequisite: BIOL 107, BIOL 107L, BIOL 108, BIOL 108L. Corequisite: NURS 303. *One semester; three credits*

NURS 307. SPECIAL TOPICS IN NURSING

Directed work on a special topic or project in nursing. *One semester; three credits*

NURS 402. PROFESSIONAL ROLE DEVELOPMENT II

This course explores issues and trends of the professional nursing role. The focus will be on global, legal and ethical principles that guide health care policies with specific application to nursing while developing a mind set that facilitates positive change and incorporates evidence based clinical practices into current health care strategies. Students will have an opportunity to explore current health care delivery systems with particular emphasis on high-risk groups and the underserved community. Prerequisite: NURS 303. *One semester; three credits*

NURS 404. COMMUNITY HEALTH NURSING

This course emphasizes the concept of the global community in meeting the needs of client and client centered systems through applications of Health Promotion-Disease Prevention embedded in community/public health nursing principles. Prerequisite NURS 301, 303, 305. Corequisite: NURS 406. *One semester; three credits.*

NURS 406. COMMUNITY HEALTH NURSING CLINICAL

This course includes application of the concepts of the global community and client centered care in multiple settings through service-based care delivery to underserved/vulnerable populations locally, regionally, and internationally, this includes participation in the public health, occupational health, school-health nursing, and simulation experiences Prerequisite: NURS 301, 303, 305. Corequisite: NURS 404. Pass/Fail grading. *One semester; Two credits.*

NURS 411. PROFESSIONAL PRACTICE AND LEADERSHIP

This course emphasizes the principles of leadership and management to meet the needs of clients and client-centered systems/facilities for the delivery of cost-effective health care. An overview of leadership and management theories which will enhance the student's knowledge of the legal and ethical implications of the role of professional nurse including conflict management, group process, delegation, staffing, budgeting, quality improvement, effective communication, and other issues will be discussed. Management concepts and skills are stressed to enhance student career development. Prerequisite: NURS 402, 404, 406. Corequisite: NURS 413 and 415. *One semester; three credits*

NURS 413. PROFESSIONAL PRACTICE AND LEADERSHIP CLINICAL

This capstone course includes application of the concepts and principles of leadership and management In multiple settings to promote individual and group satisfaction within the work environment through a student/preceptor designed practicum. This course includes synthesis of didactic theory and content in the practicum project including application of current issues and trends in nursing leadership and management and the interdisciplinary and interprofessional role of the nurse in health-care delivery in the 21st century. Prerequisite: NURS 404 and 406. Corequisite: NURS 411. Pass/Fail grading. *One semester; two credits*

NURS 415, NURSING RESEARCH

This course emphasizes the significance of evidence-based practice; introduce research methodology principles, evaluation of current research, data collection, discrimination, and ethical conduct in research. Synthesis is monitored through intensive written assignments. Prerequisite: NURS 404,402, 406. Corequisite: NURS 411 and 413. *One semester; three credits*

NURS 417. SPECIAL TOPICS IN NURSING

This course is designed to permit intensive study into topics of special interest and timeliness in the area of nursing. *One semester; one to three credits*

■ ORIENTATION COURSE**ORIN 100. ORIENTATION**

Orientation is normally held in the Fall semester for all first year students. The purpose of the course is to bring about the best possible transition from high school to university life at Christian Brothers University. The course is conducted in small groups by specially selected Peer Counselors who have received extensive training and who are enrolled in the Counselor Training Course (COUN 300, 301). Successful completion of the Orientation 100 course is required for graduation from Christian Brothers University. Older Students may apply for an exemption from this class after conferring with the Director of Counseling and the Dean of Academic Services. ORIN 100 is under the supervision of the Director of Counseling. *Pass/Fail Grading. One semester; zero credit*

■ PACKAGING COURSES**PKG 101. INTRODUCTION TO PACKAGING**

Introduction to various areas of packaging industry, including distribution packaging, medical device packaging, food packaging; materials, including plastic and paper; and skills, including business, science/engineering, and graphic design. Offered in the Fall semester. *One semester; one credit*

PKG 200. MECHANICS OF SOLIDS

Principles of statics; coplanar and non-coplanar force systems. Equilibrium of force systems. Centroids and moment of inertia. Axial load, shear and moment diagrams. Study of stresses due to axial, bending, and torsional loading. Design applications. Prerequisite: PHYS 150. *One semester; three credits*

PKG 201. PACKAGING SEMINARS

Current practice and issues in packaging industry. Presentations by packaging professionals. *One semester; one credit*

PKG 319. PRINCIPLES OF PACKAGING

Overview of the historical development of packaging, the system of packaging science, along with information about economic importance, social implications and packaging as a profession. Study of the functions of packaging and materials, container types, processes, technology and equipment employed to protect goods during handling, shipping and storage. Introduction of package development process, packaging testing and evaluation methods, standards, and equipment. Brief review of governmental regulations affecting packaging. (Same as ChE/ME 319) Prerequisites: MATH 131 and CHEM 113 or 115. *One semester; three credits*

PKG 320. DISTRIBUTION/MEDICAL DEVICE PACKAGING

Overview of physical distribution systems, various distribution hazards imposed to products/packages in transit, rules and regulations governing distribution packaging, and common industry guidelines and practices on distribution packaging. Study of the package design process, protective packaging theories and applications, selection and design, other distribution packaging related materials and applications. Introduction to package testing and evaluation methods, standards, and equipment/systems. Introduction to basics of packaging materials, packaging design and development, and sterilization methods used in biomedical industry. (Same as ChE/ME 320) Prerequisites: MATH 131 and CHEM 113 or 115. *One semester; three credits.*

PKG 490. PACKAGING PROJECTS

Individual projects related to packaging. Reports are presented in both oral and written form. Prerequisites: PKG 319 and 320. *One semester; two credits*

PKG 495. PACKAGING INTERNSHIP

Students are placed in packaging related facilities under the supervision of qualified packaging professionals. Tasks completed as part of the internship must be approved by an authorized work supervisor. Credit is granted upon faculty approval of periodic review reports and a final summary report describing the work performed. Minimum time 200 hours. Prerequisites: Junior or senior standing and permission of the department. *One semester; three credits*

■ PHILOSOPHY COURSES

Requirements for the Religion and Philosophy degree are found on Page 40.

PHIL 201. INTRODUCTION TO LOGIC

A study of valid and fallacious reasoning, deductive and inductive. Formal logical structures such as the syllogism will be examined, as well as the logic of ordinary discourse and the avoidance of “informal” fallacies. *One semester; three credits.*

PHIL 219. SOCIAL AND POLITICAL PHILOSOPHY

A philosophical investigation into basic questions of politics and society and the moral foundations of human social existence. Topics may include human rights, equality, distributive justice, authority, punishment and coercion, and the nature of the good or just society. (Same as CJ 219) (PHIL 219 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 220. CONTEMPORARY MORAL ISSUES

A philosophical examination of a number of significant and controversial contemporary moral problems. Topics will vary but may include abortion, capital punishment, sexual morality, animal rights, environmental ethics, freedom of speech, discrimination, and affirmative action. The treatment of these topics will develop in the context of the tradition of philosophical ethics. (PHIL 220 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 223. BUSINESS ETHICS (formerly PHIL 323)

An analysis of business ethics, the responsibilities of business firms to employees, owners, consumers, and society. PHIL 223 satisfies the “Moral Values” general education requirement. *One semester; three credits*

PHIL 224. THEORIES OF HUMAN NATURE

An examination of several major theories of human nature with special emphasis on the ethical implications of these theories. A consideration of such questions as whether humans are by nature either good or evil, individual or social, free or determined in their actions, and whether they have some natural purpose or end. (PHIL 224 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 234. HONORS THEORIES OF HUMAN NATURE

An intensive study of classical, modern, and postmodern theories of human nature through the reading of original texts. There will be an emphasis on the philosophical concepts and the ethical implications of the theories. Prerequisite: Membership in Honors Program. (PHIL 234 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 280-289. HONORS SPECIAL TOPICS IN PHILOSOPHY

Special topics in philosophy open to members of the Honors Program or by permission of the instructor. *One semester; one to four credits.*

PHIL 317. ANCIENT PHILOSOPHY

An in-depth treatment of selected philosophers from the ancient and medieval periods including Plato and Aristotle. Prerequisites: sophomore standing or higher. *One semester; three credits*

PHIL 318. MODERN PHILOSOPHY

An in-depth treatment of selected philosophers from the 17th to the 19th centuries, beginning with Descartes. Does not presuppose PHIL 317. Prerequisites: sophomore standing or higher. *One semester; three credits*

PHIL 320. CONTEMPORARY PHILOSOPHY

An introduction to the major currents of 20th Century philosophical thought in America and Europe. The focus will be on the question of the meaning of subjective existence. Answers to this question will be examined from the perspectives of analytic philosophy, pragmatism, existentialism, and contemporary continental thought. Prerequisites: sophomore standing or higher. *One semester; three credits*

PHIL 322. MEDICAL ETHICS

A review and evaluation of various theories of moral philosophy and an investigation into some of the current moral issues in the fields of

biology and medicine. Prerequisite: sophomore standing or higher. (PHIL 322 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 324. TECHNOLOGY AND HUMAN VALUES

A philosophical examination of social and ethical issues relating to technology. Topics include: ethical responsibilities of engineers; the ethical of risk assessment and cost-benefit analysis, environmental sustainability and technology; technology and human nature; technology and globalization; and the impact of modern technology on human values. Prerequisite: sophomore standing or higher. (PHIL 324 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 325. ENVIRONMENTAL ETHICS

A study of ethical and social issues concerning the relation of humans to the natural environment. Topics include the history of environmental ethics, the application of various ethical theories and concepts to environmental concerns, sustainability and ethical responsibilities to future generations, and the relevance of the scientific, technological, economic, legal, and socio-political considerations in the analysis of current issues in environmental ethics. Prerequisite: sophomore standing or higher. (PHIL 325 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 335. PHILOSOPHY OF RELIGION

An examination of philosophical issues relating to religion, the concept of God, arguments for and against God’s existence, the nature of religious experience, knowledge, faith, the problem of evil and free will. (Same as RS 335). Prerequisite: any RS 200 course or higher. *One semester; three credits*

PHIL 340. ETHICAL THEORY

An examination of various philosophical theories, including those of Aristotle, Kant, and Mill, concerning moral values. Questions discussed include the following: whether morality is best defined in terms of rights, duties, consequences, authenticity of commitment, or models of virtue, and whether morality can be judged by some absolute standard or is always relative (and if so, to what?). Prerequisites: sophomore standing or higher. (PHIL 340 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 350. PHILOSOPHY OF THE ARTS

A study of various philosophical responses to questions concerning art. Topics include the nature of art, the relation between different arts, the nature of artistic creation, and the problem of evaluating works of art. Examples from literature, music, and the visual arts. Prerequisite: Sophomore standing or higher. *One semester; three credits*

PHIL 380-389. HONORS SPECIAL TOPICS IN PHILOSOPHY

Special topics in philosophy open to members of the Honors Program or by permission of the instructor. *One semester; one to four credits*

PHIL 391-396. SPECIAL TOPICS IN ETHICS

Selected philosophical topics in the area of meta-ethics, normative ethics, or applied ethics; content variable with instructor. Prerequisite: Sophomore standing or higher. (PHIL 395 satisfies the “Moral Values” general education requirement). *One semester; three credits*

PHIL 491-496. SPECIAL TOPICS IN PHILOSOPHY

Selected philosophical topics; content variable with instructor. Prerequisite: Sophomore standing or higher. *One semester each; one to three credits each*

PHIL 497. SENIOR SEMINAR (formerly PHIL 499)

This seminar, for Religion and Philosophy majors in their Senior year, introduces students to philosophical, theological, and scriptural research methods to prepare students for satisfactory completion of their Senior Projects (PHIL/RS 498). During this semester long seminar, each student will develop a research program for his or her senior thesis, with the semester culminating in a presentation of each student’s project proposal and outline. Offered in the Fall semester. *One semester; one credit*

PHIL 498. SENIOR PROJECT

The senior project is a capstone independent study requirement for Senior Religion and Philosophy majors. Under the supervision of a senior project faculty advisor, each student will assemble a committee of three departmental faculty members to evaluate a research paper related to the student’s previous studies in religion and/or philosophy. The final project will also be presented to the faculty of the Religion and Philosophy Department. Prerequisite: either PHIL 497 or RS 497. Offered in the Spring semester. *One semester; two credits*

■ PHYSICAL EDUCATION COURSE

PE 201. RHYTHMIC ACTIVITIES AND GAMES

Activities and games designed for teaching of elementary students. Offered in the Fall and Spring semester. *One semester; one credit*

■ PHYSICS COURSES

Requirements for the degree are found on Page 103.

PHYS 150. PHYSICS I

A beginning course in physics covering the topics of kinematics, dynamics, gravitation, work, energy, momentum, rotational kinematics and dynamics. Prerequisite: MATH 129 or 131. Corequisite: PHYS 150L. Offered in the Fall and Spring. *One semester; three credits*

PHYS 150L. PHYSICS I LABORATORY

Laboratory to accompany PHYS 150. Corequisite: PHYS 150. Offered in the Fall and Spring. *One semester; one credit*

PHYS 201. INTRODUCTORY PHYSICS I

A general physics course covering the topics of mechanics, heat, and sound. Designed primarily for biology majors. Prerequisite: High school algebra and trigonometry or MATH 117. Corequisite: PHYS 201L. Offered in the Fall semester. A student can receive credit for only one of PHYS 150 and PHYS 201. *One semester; three credits*

PHYS 201L. INTRODUCTORY PHYSICS I LABORATORY

Laboratory to accompany PHYS 201. Corequisite: PHYS 201. Offered in the Fall semester. *One semester; one credit*

PHYS 202. INTRODUCTORY PHYSICS II

A continuation of PHYS 201 covering the topics of electricity and magnetism, light, and modern physics. Prerequisite: PHYS 150 or PHYS 201. Corequisite: PHYS 202L. Offered in the Spring semester. *One semester; three credits*

PHYS 202L. INTRODUCTORY PHYSICS II LABORATORY

Laboratory to accompany PHYS 202. Corequisite: PHYS 202. Offered in the Spring semester. *One semester; one credit*

PHYS 251. PHYSICS II

A second course in physics covering electric forces, electric fields, voltage, capacitance, current, resistance, magnetic forces, magnetic fields, induction, oscillations, and waves. Prerequisite: PHYS 150. Corequisite: PHYS 251L. Offered in the Fall and Spring. *One semester; three credits*

PHYS 251L. PHYSICS II LABORATORY

Laboratory to accompany PHYS 251. Corequisite: PHYS 251. Offered in the Fall and Spring. *One semester; one credit*

PHYS 252. PHYSICS III

A third course in physics covering geometrical optics, interference, diffraction, quantum theory, waves and particles, atomic physics, special relativity, radioactivity, and nuclear physics. Prerequisite: PHYS 251. Offered in the Fall and Spring. *One semester; three credits*

PHYS 252L. PHYSICS III LABORATORY

Laboratory to accompany PHYS 252. Prerequisite or corequisite: PHYS 252. Offered once per year. *One semester; one credit*

PHYS 337. ELECTRICITY AND MAGNETISM

(Same as ECE 406) Offered in the Fall semester. *One semester; three credits*

PHYS 347. SPECIAL RELATIVITY

A study of the theory of special relativity including the experimental background of special relativity, relativistic kinematics including the doppler effect, and relativistic dynamics including the equation $E=mc^2$. Prerequisite: PHYS 252. Offered once every two years. *One semester; two credits*

PHYS 353. SOLID STATE PHYSICS

An introductory study of the physics of solids including crystal lattice vibrations and waves, the free electron model, electron energy bands, semiconductor electrical properties, junctions, and optical properties. Prerequisites: PHYS 252 and MATH 232. Offered in the Fall semester. *One semester; three credits*

PHYS 380. ADVANCED MECHANICS I

Primarily an advanced study of the kinetics and dynamics of single particles; Newton's laws; concepts of momentum, work, energy; and conservation principles. Prerequisites: PHYS 251 and MATH 232. Offered in the Fall semester of odd numbered years. *One semester; three credits*

PHYS 381. ADVANCED MECHANICS II

A continuation of the study of mechanics including accelerated reference frames, Lagrangian and Hamiltonian mechanics, and generalized coordinates. Prerequisite: PHYS 380. *One semester; one credit*

PHYS 400. INTERNSHIP IN PHYSICS

Students majoring in physics, engineering physics, or natural science receive on-the-job training in the offices or laboratories of cooperating firms. To receive credit, the student must submit periodic reports and a detailed final report of the work done. The authorized supervisor of the firm must verify these reports. Prerequisites: Junior standing and approval of the Physics faculty. *Pass/Fail Grading. One semester; one to three credits*

PHYS 415. OPTICS

A study of electromagnetic radiation, with emphasis on the visible portion of the spectrum. Topics include optical detectors, superposition of waves, interference, far-field and near-field diffraction, polarization, waveguides and optical fibers, and laser theory. Prerequisites: PHYS 252 and MATH 232. Offered in the Fall semester of even numbered years. *One semester; three credits*

PHYS 415L. OPTICS LABORATORY

Laboratory to accompany PHYS 415. Corequisite: PHYS 415. Offered in the Fall semester of even numbered years. *One semester; one credit*

PHYS 430. THERMAL PHYSICS

The first part of the course focuses on a classical treatment of thermodynamics from the perspective of physics. The second part of the course examines thermodynamics from the modern statistical mechanics viewpoint. Topics include the fundamental laws of thermodynamics, entropy, ideal gasses, the Boltzmann distribution, the partition function and applications to real systems. Prerequisites: PHYS 252 and MATH 232. *One semester; three credits*

PHYS 447. QUANTUM MECHANICS I

A detailed introduction to quantum mechanics including thermal radiation, deBroglie's postulate, Schrodinger's equation, one-electron atoms, spin and transition rates. Prerequisites: PHYS 252 and MATH 232. Offered in the Fall semester of odd numbered years. *One semester; three credits*

PHYS 448. QUANTUM MECHANICS II

A continuation of the study of quantum mechanics including statistical mechanics, time-independent and time-dependent perturbation theory, and scattering. Prerequisite: PHYS 447. Offered in the spring semester of even numbered years. One semester; three credits

PHYS 452. ADVANCED PHYSICS LABORATORY

A laboratory course in advanced selected experiments. A written report on each experiment is required. Prerequisite: PHYS 252L. Offered in the Spring semester of odd numbered years. *One semester; one credit*

PHYS 491. RESEARCH I

An independent investigation in some field of physics. A choice of topic for research is made, and a written description of the proposed research including bibliographical references is required. Prerequisite: Departmental approval or Senior standing. Offered in the Fall semester. *One semester; zero credit*

PHYS 492. RESEARCH II

The research proposed in PHYS 491 is carried out. A formal written report plus an oral presentation to the class and the departmental faculty is required. Prerequisite: PHYS 491. Offered in the Spring semester. *One semester; two credits*

PHYS 495. SPECIAL TOPICS IN PHYSICS

Directed work on a special topic in physics approved by the department. *One semester; one to three credits*

PHYS 499. SENIOR COMPREHENSIVES

Second semester seniors are required to take a comprehensive examination on selected fields of physics as prepared and administered by the department faculty. A passing score is required for graduation. Offered in the Spring semester. *One semester; zero credit*

■ POLITICAL SCIENCE COURSES**POLS 112. AMERICAN GOVERNMENT**

This course is a survey of the American political system. Topics include the Constitution, federalism, interaction between the three branches of the federal government (legislative, executive, and judicial), political actors outside government (interest groups, media, political parties), state and local government, political culture, civil liberties, civil rights, and public policy. Offered in the Fall and Spring. No prerequisite. *One semester; three credits*

POLS 113. WORLD POLITICS

This course examines how politics unfold at the global level. Special attention will be paid to global actors and institutions: nations-states, international organizations, non-governmental organizations, and multi-national corporations. Topics include: conflict and cooperation, terrorism, the world economy, the environment, international law, and the interplay of culture, ideology, technology, and geography. No prerequisite. *One semester; three credits*

POLS 115. NATIONS AND STATES (Comparative Politics) (Formerly POLS 210)

Comparing nation-states from different regions of the world through an examination of their politics, governments, economic systems, and cultures. The course will include discussion of democratic and non-democratic regimes, and different constitutional models. It shall also explore the role of culture, history, ideology, religion, and geography in shaping political systems. No prerequisite. *One semester; three credits*

POLS 200-205. SPECIAL TOPICS IN POLITICAL SCIENCE

Topics vary with instructor. No prerequisite. *One semester; one to three credits*

POLS 215. INTRODUCTION TO THE LAW

This course is intended to introduce the student to the American legal system and to various practice areas of the law. Topics discussed include: how (and why) the American legal system is organized, including how the legislative process and executive branch are involved in this system; the focus on the role of ethics, procedure, and jurisdiction in the law; and an introduction to the primary substantive areas of the law that first year law students encounter, including torts, family, estate, property, contracts, business, and criminal law. (Same as PREL 215). No prerequisite. *One semester; three credits*

POLS 220. SCIENCE FICTION AND POLITICS

The examination of political and social themes in works of science fiction and fantasy. The focus of the course will be the critical reading of texts, both written works and film. Issues discussed include: identity, the Self and the Other, conflict and war, the organization of society, utopia/anti-utopia, and the relationship between technology and culture. No prerequisite. *One semester; three credits*

POLS 230. SURVEY OF POLITICS ON FILM

A survey of film as a vehicle for the communication of ideas and as an art form. The critical analysis of film as a political text. The way in which political and social issues are depicted in film. Other issues discussed include prejudice and stereotyping in film, propaganda, and film censorship. No Prerequisite. *One semester; three credits.*

UPPER DIVISION COURSES ARE OPEN TO STUDENTS WHO HAVE SOPHOMORE STANDING AND MEET SPECIFIC COURSE PREREQUISITES, IF ANY.

POLS 330. ADVANCED POLITICS ON FILM

A concentrated critical analysis of the political aspects of film, the politics of film production, and the interpretation of film. This course shall focus on a particular political or social issue, topic, or film genre. Prerequisite: Any Political Science or History course or permission of the instructor. Recommended but not required: POLS 230. *One semester; three credits.*

POLS 340. WEIMAR REPUBLIC AND NAZI GERMANY

This course covers the history of Germany from 1919 to 1945. It will examine the collapse of the Weimar Republic and the rise of Nazi power. It will also cover the life of Adolf Hitler, the Holocaust, and Nazi ideology, policy, and war aims. Prerequisite: HIST 108 or POLS 113 or POLS 320 or Permission of the instructor. (Same as HIST 340) *One semester; three credits*

POLS 370. INTERNATIONAL LAW

The history, formation and application of international law. Issues discussed include the sources of international law, the law of treaties, and rules regarding diplomacy, human rights, war/peace, war crimes, nationality, territory, and the global commons. Course readings shall include both secondary sources and legal texts. Prerequisites: Any political science or history course, or GS/HUM 200 or permission of the instructor. Recommended, but not required: POLS 113. *One semester; three credits*

POLS 375. UNITED STATES FOREIGN POLICY

(Same as HIST 375). Prerequisite: any political science or history course or Permission of the instructor. Recommended, but not required, one of the following: HIST 152 or POLS 112 or POLS 113. *One semester; three credits.*

POLS 390-399. HONORS SPECIAL TOPICS

Special topics in political science open to members of the Honors Program or by permission of the instructor and Honors Director. Topics vary with instructor. *One semester; three credits*

POLS 401. U.S. CONSTITUTIONAL LAW

An examination of the structure of U.S. government and the limits on governmental power through detailed analysis of the U.S. Constitution and Supreme Court decisions interpreting it. The course will also examine the appropriate scope of judicial review in a democratic society. Prerequisite: POLS 112 or HIST 151 or permission of the department head. *One semester; three credits*

POLS 470-479. TOPICS IN POLITICAL SCIENCE

Topics vary with instructor. Prerequisite: Any political science or history course, or permission of instructor. *One semester each; one to three credits each*

POL 490-499. INTERNSHIPS

Content varies with specific internship program. Prerequisite: Permission of Political Science Internship Director. *One semester each; one to three credits.*

■ PRE-LAW COURSE**PREL 215 INTRODUCTION TO THE LAW**

This course is intended to introduce the student to the American legal system and to various practice areas of the law. Topics discussed include: how (and why) the American legal system is organized, including how the legislative process and executive branch are involved in this system; the focus on the role of ethics, procedure, and jurisdiction in the law; and an introduction to the primary substantive areas of the law that first year law students encounter, including torts, family, estate, property, contracts, business, and criminal law. (Same as POLS 215). No prerequisite. *One semester; three credits.*

PREL 216. PRE-LAW PRACTICUM

The Pre-Law Practicum will prepare students for the challenges of law students. The emphasis will be on personal statement preparation, LSAT preparation, and the application process. No prerequisite. *One semester; one credit*

■ PSYCHOLOGY COURSES

Requirements for the degree are found on Page 39.

PSYC 105. GENERAL PSYCHOLOGY

An introduction to the discipline of psychology as a science of behavior. Areas of study include biological aspects of psychology, learning, sensation, perception, personality, abnormal behavior, psychological testing and research, social and developmental psychology. Psychology and Applied Psychology majors must complete the course with a grade of "C" or better. *One semester; three credits*

PSYC 106. PSYCHOLOGY SEMINAR

An introduction to the psychology major, this course will focus on how to make the most of a psychology degree. Topics will include careers, skill development, resumes, research, graduate school, internships, and options within the major. Students will meet once a week. Each session will be led by a Behavioral Sciences faculty member. Offered in the Spring semester. *One semester; zero credit*

PSYC 218. HUMAN DEVELOPMENT

An examination of developmental trends, principles, and processes through the lifespan. This course investigates human development at all stages and ages with attention to biological, social, and cognitive development. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 219. PERSONALITY

A survey of major personality theories and perspectives in terms of conceptions, applications, and research. Emphasis is placed on the dispositional, biological, motivational, social, and cultural perspectives of personality. Also discussed are personality assessment, stress, and personality disorders and adjustment. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 223. FOUNDATIONS OF FORENSIC PSYCHOLOGY

An examination of the field of forensic psychology including professional training, forensic work settings, and the application of psychological knowledge to forensic issues like risk assessment, custody evaluations, assessment of sanity, competency, eyewitness testimony, jury decision making, police stress, and criminal profiling. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 225. BIOLOGICAL PSYCHOLOGY

Views the study of human and animal behavior within the context of biological principles. Areas covered include brain-behavior relationships, sensory processes, and biological bases for emotional behavior, sexual behavior, and psychological disorders. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 226. PSYCHOLOGY IN THE CINEMA

In this course we look at understanding movies as a psychological process through the use of film technique. We study the influential role of movies in society. The class will do in-depth analyses of several movies that deal with psychological concepts. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 227. SPORT PSYCHOLOGY

Examines psychological theories and research related to sport and exercise behavior. The course is designed to introduce students to the field of sport and exercise psychology and to provide an overview of basic research and practical implementations in this applied specialization of psychology. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 228. PSYCHOLOGY OF MEDIA

This course investigates the media construction of reality by examining media representations of different social constructs. Students examine how reality is created from a cognitive psychological and social-cognitive approach and from different media theories. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 229. HONORS PSYCHOLOGY OF MEDIA

This course investigates the media construction of reality by examining media representations of different social constructs. Students examine how reality is created from a cognitive psychological and social-cognitive approach and from different media theories. Prerequisite: Membership in the Honors Program or special permission of the instructor. *One semester; three credits*

PSYC 230. PSYCHOPATHOLOGY

A survey of various types of mental disorders including their causes, symptoms, diagnosis, and treatment. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 231. HONORS PSYCHOPATHOLOGY

This course will critically examine current and historical views of mental illness. Emphasis will be placed on understanding the social stigma of mental illness and placing mental illness in economic, historical, and socio-political frameworks. Prerequisite: Membership in the Honors Program. *One semester; three credits*

PSYC 235. FUNDAMENTALS OF APA WRITING STYLE AND ETHICS

Students will learn to write an APA-style research paper. They will write an APA-style research proposal with the potential of completing the research in the Correlational or Experimental Methods course. Students will also learn other research reporting methods including Powerpoint and poster presentations. Students will complete certification in APA ethics. Open to other students by instructor permission only. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 240. ANIMAL COGNITION

A study of the mental processes of animals with a comparative emphasis on human-animal cognitive processes viewed within an evolutionary context. Topics include language learning and communication, concept formation, problem solving, intelligence, emotion, and construction of artifacts. Similarities in animal-human developmental processes will be examined as well as current research on animal cognition. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 270. DYNAMICS OF GENDER

This class will critically examine how norms, beliefs, ideologies, language, culture and institutions influence gender behavior, traditional conceptions of masculinity and femininity, and socialization for masculine and feminine roles. (Same as SOC 270) Prerequisite: PSYC 105 or SOC 101. *One semester; three credits*

PSYC 275. GRADUATE SCHOOL & PROFESSIONAL CAREERS IN PSYCHOLOGY

A survey of various professional careers in psychology and a thorough examination of the graduate school application and admissions process. Careers examined may include but are not limited to clinical/counseling, forensic, consumer, sports, educational, industrial/ organizational, and academics. This course is intended primarily for those students who plan to pursue a graduate education in psychology. Prerequisite: PSYC 105 and Sophomore standing. *One semester; three credits*

PSYC 280-287. SELECTED TOPICS IN PSYCHOLOGY

Directed work on a special topic or project in psychology. *One semester; one to three credits*

PSYC 289. PROBLEM SOLVING AND DECISION MAKING

The objective of this course is to improve people's ability to solve problems and make decisions using psychological material discussed in class. Students will learn to improve their practical problem solving skills by learning to recognize and overcome conceptual blocks to problem solving. Topics to be covered include creativity, methods of problem solving, memory aids, decision-making tolls, avoiding biases of judgment, etc. Students will be given assignments revolving around practical problems and decisions (e.g., how to improve time management). Prerequisite: PSYC 105. *One semester; three credits*

PSYC 290-299. HONORS SPECIAL TOPICS

Special topics in psychology open to members of the Honors Program or by permission of instructor and Honors Director. *One semester; one to four credits*

PSYC 301. ENGINEERING PSYCHOLOGY

Engineering psychology, also called human factors, ergonomics or usability engineering, deals with the importance of designing for human use. Equipment that is not ergonomically sound will be operated a little more slowly and be a little more prone to error. Our goal in this class is to provide a solid foundation in the principles of human performance and a broad overview of the field of human factors. This class provides the student with an understanding of the variables that influence human performance and the ways in which the human factors expert draws on this knowledge. The analysis of human performance requires frequent contact with real-world situations in which people actually perform. This course provides an integrated approach to the study of human factors, embedding the principles of human factors within a foundation based on contemporary views of human performance. Topics include the following: perception, cognition, movement, and environment. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 310. DEATH AND DYING

A course considering relevant topics relating to death and the dying process from a multi-disciplinary perspective. Course content includes the meaning of death, the dying process in historical context and in contemporary culture, bereavement, grief, and mourning, approaches to terminal care, death and childhood, violent death, suicide, death industries, the right to die, and surviving death. Prerequisite: PSYC 105. (Same as SOC 310) *One semester; three credits*

PSYC 315. EDUCATIONAL PSYCHOLOGY

This course focuses on the application of psychology to the school setting. It is intended to assist students in mastering an organized sampling of scientific knowledge about human development, learning, motivation, individual differences, and evaluation. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 320. HONORS SEMINAR DEATH AND DYING

This seminar focuses on critically examining and understanding death, the dying process, grief, the ethics of life/death, and a variety of related issues. It integrates a number of multidisciplinary perspectives and resources, emphasizes the exercise of critical thinking and implements the philosophy of writing as an integral means of learning. Prerequisite: Membership in the Honors Program or special permission of the instructor. (Same as SOC 320) *One semester; three credits*

PSYC 325. TOPICS IN AGING

This course focuses on the following issues in aging: the impact of aging on the individual, the family, and society; the quality of later life; societal attitudes toward old age; problems and potentials of aging; retirement; living environments in later life; societal policies, programs and services for older Americans. The diversity in the aging process due to differences in gender, race, and social class is emphasized. (Same as SOC 325) Prerequisite: PSYC 105 or SOC 101. *One semester; three credits*

PSYC 340. FUNDAMENTALS OF COUNSELING

This course presents counseling in a broad manner covering its history, theories, processes, issues, specialties, and trends. In addition, this course concentrates on the importance of the personhood of counselors and of the multicultural, ethical, and legal environments in which counselors operate. Prerequisites: PSYC 105. *One semester; three credits*

PSYC 343. APPLIED CRISIS INTERVENTION STRATEGIES

This course presents the fundamental concepts, theories, strategies, and skills needed to understand and conduct effective crisis intervention. By studying case illustrations, it focuses on applying intervention strategies to several of the currently most prevalent types of crisis in the human experience. In addition, this course considers the importance of the personhood of the worker and crises that may occur in the human service workplace. Prerequisite PSYC 105. *One semester; three credits*

PSYC 345. HUMAN SEXUALITY

A survey study of topics in human sexuality. Topics included are basic reproductive anatomy, hormonal influences on behaviors, attraction, relationships, sexual variations, birth control, and sexually transmitted diseases. Self-assessment surveys on sexual attitudes are discussed in class. (Same as SOC 345) Prerequisite: PSYC 105. *One semester; three credits*

PSYC 350. INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY (Formerly PSYC 352)

This course examines the contributions of psychology to effective human resources development and management. The course content is designed for Psychology and Business majors and focuses on the practical applications of psychology in the business world. Topics include the psychology of organizations, motivation and supervision, employee selection and development, legal considerations, evaluation, and organizational development. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 351. ADOLESCENT PSYCHOLOGY (Formerly PSYC 350)

This course is an exploration of theory and research relevant to the physical, psychological, and social transitions associated with early, middle, and late adolescence. Developmental issues examined include the formulation of identity establishing autonomy, moral development, social interaction, and the transformations associated with puberty, as well as the identification and understanding of problems and psychopathology in adolescence. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 353. SOCIAL PSYCHOLOGY

A study of the social-psychological aspects of human interactions. Areas of study include: affiliation, social perception, attribution processes, interpersonal attraction, aggression, attitude formation, attitude change, conformity, compliance, cooperation, competition, group structure, and group

dynamics. (Same as SOC 353) Prerequisite: PSYC 105 or SOC 101. *One semester; three credits*

PSYC 354. CORRELATIONAL RESEARCH METHODS AND STATISTICS

An introduction to the fundamentals of research methods and statistical analysis in the Behavioral Sciences. Students will learn and apply basics of research methodology and basic statistical techniques with an emphasis on correlational methods. Students will conduct a correlational research project which will be presented to other students and faculty. Prerequisite: PSYC 235 and ALG 110 and 120 or ALG 115. Required for all Psychology and Applied Psychology majors. Open to other students by instructor permission only. *One semester; three credits*

PSYC 355. EXPERIMENTAL RESEARCH METHODS AND STATISTICS

An introduction to basic experimental research design and related statistical analyses. Students will be required to design and conduct an experimental research project which will be presented to other students and faculty. Prerequisite: Grade of "C" or better in PSYC 354. Required for all Psychology majors. Open to other students by instructor permission only. *One semester; three credits*

PSYC 365. DEVIANT BEHAVIOR

An exploration of theoretical perspectives on deviance, problems in defining deviance and specific categories of deviance. Deviant behaviors discussed may include but are not limited to prostitution, gambling, transgenderedness, pornography, mental illness, sexualities, and physical disability. (Same as CJ 365 and SOC 365). *One semester; three credits*

PSYC 370. APPLICATIONS OF MEMORY

An examination of the application of memory in such diverse areas as courtroom testimony (e.g., factors influencing witnesses, hypnosis, repressed memory, false memory), memory for everyday events, memory aids, and advertising. The relevant theories and research in each area are examined. Prerequisite: PSYC 105. (Same as CJ 370) *One semester; three credits*

PSYC 380-387. SELECTED TOPICS IN PSYCHOLOGY

Directed work on a special topic or project in psychology. *One semester; one to three credits*

PSYC 390-399. HONORS SPECIAL TOPICS IN PSYCHOLOGY

Special topics in psychology open to members of the Honors Program or by permission of the Instructor and Honors Director. *One semester; three credits.*

PSYC 416. PSYCHOLOGY OF LEARNING

An in-depth examination of concepts, theoretical issues, and research findings involving the psychology of learning. Areas of study include classical and instrumental conditioning, principles of reinforcement and punishment, and other factors affecting learning. This course has a service-learning component. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 440. COGNITIVE PSYCHOLOGY

This course is designed to investigate the nature of the thinking mind. Cognitive psychology involves understanding how we gain information of the world, how it is transformed into knowledge, stored in memory, and accessed when needed. Prerequisite: PSYC 105. *One semester; three credits*

PSYC 450, 451. INDEPENDENT RESEARCH IN PSYCHOLOGY

These courses are a two semester sequence intended for advanced (junior status or higher) students who wish additional experience in research design and statistical analysis. In PSYC 450 the student will investigate in depth a specialized topic in psychology resulting in a proposal that will include a literature review, hypotheses and proposed research design. In PSYC 451 the student will further investigate the topic by engaging in empirical research that is then analyzed, interpreted, and presented in a manuscript. These courses are recommended for students intending to continue their education in a graduate program. Prerequisites: PSYC 354, 355 and permission from the chair of Behavioral Sciences. *Two semesters; two credits each*

PSYC 453. PSYCHOLOGY OF PERSUASION

This course examines the scientific and social psychological processes that underlie persuasion, Attitude formation and measurement as well as resistance to persuasion will also be examined. Persuasion as it applies to political campaigns, propaganda, and advertising and consumer behavior will be addressed, along with other relevant topics. Prerequisite: PSYC 105. *One semester; three credits.*

PSYC 455. CORRECTIONAL COUNSELING

(Same as CJ 455) *One semester; three credits*

PSYC 460. PRACTICUM IN PSYCHOLOGY

The practicum offered for majors with senior status includes several options. The first is a formal internship consisting of 100 hours of professional in-field experience. It is a well-structured program in which students will be required to meet a number of objectives related to their goals, their developing competence, and their interests in psychology and related fields. A 2.5 GPA is required to pursue this option. The second option involves a research assistantship in which seniors will assist practicing graduate-level and professional-level researchers in conducting their projects. Sound performance in the statistics and research courses is a prerequisite for this option. A third option involves the opportunity to be a learning facilitator mentored by a full-time faculty member. In this capacity, the student provides support services to a faculty member in a specific course. These services include preparation of presentation materials, development of study guides, the convening and leading of study groups, peer editing, and the compilation of course-related research. This option may be particularly valuable to students seeking careers in academic fields. The guidelines and requirements for this option have been developed and are made available to interested students upon request. A final option is an individually-designed project suited to the needs, interests, and academic strengths of the student. The project will be conducted under the direction of a full-time faculty member. Guidelines for the formal proposals are available. Plans for any of these options should be developed and approved by the Practicum Director the semester before the course is taken. Prerequisite: Senior standing. *One semester; three credits*

PSYC 480-487. ADVANCED TOPICS IN PSYCHOLOGY

Directed work on a special topic or project in psychology. *One semester; one to three credits*

PSYC 490. SENIOR CAPSTONE

Readings, evaluation and analysis of selected topics in the discipline. May require a comprehensive individual empirical research project or other final project to be presented to and approved by departmental faculty. Prerequisite: Senior Standing. *One semester; three credits*

PSYC 497. PSYCHOLOGY COMPREHENSIVES

Seniors will be required to take a comprehensive examination on selected areas of psychology. Students are required to have completed or be currently enrolled in their final psychology courses before taking the exam. This course commences through email and requires monitored email access, so students are responsible for contacting the instructor at the beginning of the semester to confirm enrollment and schedule the exam. Prerequisite: PSYC 105, PSYC 219, PSYC 230, PSYC 353, PSYC 354, PSYC 440. *Pass/Fail Grading. One semester; zero credit*

PSYC 499. ADVANCED INTERNSHIP

This course is intended for students who have completed the requirements for PSYC 460 at an exemplary level and either (a) wish to pursue further opportunities or directed field research at their original field placement or (b) wish to pursue an additional field placement consistent with the goals of the internship program and the developing interests of the students. Permission of the Practicum Director is required. *One semester; three credits*

■ RELIGIOUS STUDIES COURSES

Requirements for the Religion and Philosophy degree are found on Page 40.

Students are required to take one course at the 200 level before taking courses at the 300 level or above.

RS 200. UNDERSTANDING RELIGION

An introduction to religion through a comparative study of all aspects of religious experience in Christianity and other religious traditions. This course will address existential and theological questions through a study of scriptures, sacred reality, symbol, ritual, and ethics. *One semester; three credits*

RS 217. OLD TESTAMENT (HEBREW SCRIPTURES)

Using the Old Testament as a text and a guide, the course explores the origins and early history of the Jewish people to the Maccabean revolt and encompasses concepts such as Covenant, Prophecy, Messiah. *One semester; three credits*

RS 218. NEW TESTAMENT

A discussion of the Christian scriptures from literary, historical, and theological points of view concentrating on the life and teachings of Christ and the spread of Christianity after His death and resurrection. *One semester; three credits*

RS 220. CLASSICAL CHRISTIAN THOUGHT

An examination of major themes and issues in Christian history and theology from the time of the early Church through the Reformation. Major theologians such as Augustine, Aquinas, Luther, and Calvin will be studied among others, along with the expression of Christianity through art, architecture, and religious practice. *One semester; three credits*

RS 221. MODERN CHRISTIAN THOUGHT

An examination of major themes and issues in Christian theology after the Reformation to the early twentieth century. The focus will be on responses within Christian theology to modern science and to the emergence of democracy and capitalism. *One semester; three credits*

RS 230. CHRISTIAN ETHICS

A critical investigation of the theological convictions grounding Christian understandings of doing what is right and being a good human person. This will include approaches to ethics from within both Catholic and Protestant Christianity, along with analysis of selected moral issues. *One semester; three credits*

RS 240. THE RELIGIOUS DIMENSION OF WORK (Formerly RS 315)

A study of the relationships between work and religion in western society. Career, studied from several perspectives, will be viewed ultimately as a vocation—a call from God. *One semester; three credits*

RS 245. HONORS RELIGION AND SCIENCE

This interdisciplinary course focuses on the way religion and science jointly contribute to our knowledge. It is based on the premise that no one source of knowledge, theological or otherwise, can alone provide a complete description of reality. Readings and guest lecturers from other disciplines will cover a wide-ranging dialogue dealing with issues in astronomy, physics, biology, and ecology. A spectrum of possibilities for the relation between religion and science will be considered, including the options of conflict, independence, dialogue, and interaction. Prerequisite: Membership in the Honors Program or permission of the instructor. *One semester; three credits*

RS 254. CHRISTIANITY AND PEACE

An analysis of historical Christian attitudes toward war and peace. Theological and moral arguments for the pacifist and just war traditions will be analyzed, along with their application to forms of state sanctioned violence such as war and capital punishment and the new challenges to these traditions such as military intervention and terrorism. (Same as HUM 254) *One semester; three credits*

RS 260. PERSON, WORLD, AND GOD

This course will focus phenomenologically on ways to recognize God's presence in our everyday lives. How does one person's religious experience compare/contrast with another's? Personality types, prayer forms, biblical references, and theological studies will be examined in tandem with lived experiences. *One semester; three credits*

RS 270. WORLD RELIGIONS

A survey of the great eastern and western religious traditions. The course covers the history, beliefs, practices, symbols, and sacred scriptures of

select religions, including indigenous religions, Hinduism, Buddhism, Judaism, Christianity, Islam, and new religious movements. The course will include visits to religious sites in Memphis. *One semester; three credits*

RS 271. SOCIOLOGY OF RELIGION (formerly RS 371)

The study of the beliefs, practices, and organizational forms of religion using the tools and methods of sociology. Topics covered may include the relation of beliefs to social conditions, the role of religion in cultural formation and public life, religious pluralism and conflict, the nature of religious cults and sects, the influence of religion on racial, gender, and sexuality issues, and the affect modernity has on religious belief and practice. (same as SOC 271). Prerequisite: SOC 101. *One semester; three credits*

RS 280. CATHOLICISM

An examination of the teachings, structures, and cultural influence of Roman Catholicism with emphasis on the development of the American Catholic community after the influence of Vatican II. *One semester; three credits*

RS 285. THE CHURCH IN THE WORLD

A study of the theology and organization of various major Christian churches in terms of their relation with the world and each other. Different models of being church will be analyzed, including approaches to authority, worship, and religious pluralism. *One semester; three credits*

RS 290-294. SELECTED TOPICS IN RELIGION

Selected topics of special interest at an introductory level. Topics vary with instructor. *One semester; three credits*

RS 295-299. HONORS SPECIAL TOPICS IN RELIGION

Selected topics of special interest in Religious Studies open to members of the Honors Program or by permission of the instructor. *One semester; three credits*

RS 300. JESUS CHRIST

An investigation into the historical features of Jesus' ministry and message and His importance in the world today. The course will examine Christian doctrine about Jesus and probe the reasons for His appeal through the centuries. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 320. RELIGION IN AMERICA

An examination of the various religious communities of the United States, how they were shaped by and helped shape the American culture. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 324. CHRISTIAN SPIRITUALITY

An examination of key figures and themes in Christian spirituality in terms of their different approaches to living the Christian life. Analysis will be made of each approach to spirituality in relation to Christian beliefs and values, the manner in which the spirituality is expressed in the daily practice of Christian life and the time period in which the spirituality developed. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 326. SOCIAL AND POLITICAL THEOLOGIES

A critical examination of contemporary social and political theologies, such as liberation theology, black theology, feminist theology and womanist theology. Special attention will be given to the importance of social context in developing such theologies and their ways of drawing from and critiquing traditional Christian theological views. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 330. JUSTICE AND SOCIETY

A study of issues relating to justice and human rights in contemporary social life (economic, political, cultural), focusing on the contributions of developing social justice teachings of the churches. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 331. THE SPIRITUALITY AND ETHICS OF EATING

This course examines the role of food and eating in the sacred texts and rituals of Judaism and Christianity in order to explore the thesis that food is not primarily a commodity but a relationship linking people to one another, to God, to the land, plants, and animals. Students additionally examine the contemporary environmental, ethical, and spiritual dimensions of food and the way these are reflected in our eating practices. Students are required to complete a service project for this course. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 335. PHILOSOPHY OF RELIGION

(Same as PHIL 335) Prerequisite: any RS 200 level course. *One semester; three credits*

RS 340. AFRICAN AMERICAN THEOLOGY

This course is a survey of black theology in the United States from its roots in Africa and Christian missions through the period of slavery to the present day with special emphasis on contemporary works of Black Liberation Theology. The course will introduce students to the significant development of Christian theology by African Americans. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 345. GOD, EVIL AND SUFFERING

A consideration of the question of religious faith in the face of evil and seemingly senseless pain and suffering, as well as some of the more carefully-reasoned responses proffered within the history of Christian thought, both traditional and modern. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 355. JUDAISM

Introduction to the history, religion, literature, and practices of rabbinic Judaism. This course will examine how the foundational heritage of the Hebrew Bible and the Israelite people transformed into the institutions and rituals of modern Jewish experience. Course will also examine issues such as Jewish-Christian dialogue, the Holocaust, and the modern state of Israel. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 360. ISLAM

An analysis of the Islamic faith, its history, major beliefs, contribution to civilization around the world, and relationship with Judaism and Christianity. Course topics include the five pillars of Islam. Jihad, male/female, relations, worship and celebrations, community life, and contemporary global and geopolitical issues in relation to Islam. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 372. WOMEN AND CHRISTIANITY

A historical and theological survey of the role of women in Christianity. Beginning from Christian origins, this course examines representations of women as apostles, prophets, martyrs, nuns and beguines, mystics, mothers, and wives. Special attention will be paid to theological discussions of the position of women, as well as contemporary reevaluations. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 375. THE PROPHETS

The movement that began with the 8th century BCE prophets of Israel marked a clear departure from the social and religious world view prevalent in the ancient Near East. This course will examine the background and literature of the prophetic movement with its agenda for social, religious, and political reforms. It will stress how prophets such as Amos, Jeremiah, and Isaiah were able to have a lasting impact on Western thought and religion through their views of Israel's relationship with neighboring nations, God, and future humanity. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 377. APOCALYPTIC IMAGINATION

A critical examination of apocalyptic texts and traditions in the ancient and modern worlds, with special attention to the book of Revelation. The course also explores modern appropriations of apocalyptic literature in theology, art, and film, and will give attention to more recent movements with apocalyptic overtones. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 380. PAUL: HIS LIFE AND HIS LETTERS

An historical and theological examination of the Apostle Paul and the Pauline letters, especially as they reflect the concerns of developing Christianity, including such issues as apocalypticism and the relation of Christian communities to the Jewish faith and the Roman Empire. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 385. THE GOSPELS

A study of the four Gospels using contemporary techniques of biblical interpretation with particular emphasis on the developing Jewish tradition in the early Christian Community. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 390-394. SPECIAL TOPICS IN RELIGIOUS STUDIES

Selected topics of special interest at an advanced level. Topics vary with instructor. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 395-399. HONORS SPECIAL TOPICS IN RELIGIOUS STUDIES

Special topics in religious studies open to members of the Honors Program or by permission of the instructor. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 400. CATHOLIC THOUGHT AND CULTURE THROUGH THE AGES

An interdisciplinary exploration of the wisdom of the Catholic tradition expressed through works of intellect and imagination. from the beginning of the Church up to contemporary times. Classics in literature, art, theology, philosophy, music, the sciences, and/or architecture are discussed. Emphasis is placed on recognizing the integrity of the grounding Catholic vision and on tracing the unified development and expansion of that vision over time. (Note: meets with MACS 600). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS. 402. CONTEMPORARY RELIGIOUS THOUGHT

A serious study of one or more selected theologians and religious thinkers from the twentieth century. Prerequisite: any RS 200 level course. *One semester; three credits*

RS 405. HONORS CONTEMPORARY RELIGIOUS THOUGHT

This course is designed to study 20th century theologians and their theologies concerning scripture, tradition, and human experience. Prerequisite: any RS 200 level course and membership in the Honors Program. *One semester; three credits*

RS 410. CATHOLIC BIBLICAL STUDIES

What is a Catholic approach to the study of the Bible? The course will begin with the Church's teaching on biblical interpretation as contained in such documents as *Divino Afflante Spiritu*, *Dei Verbum*, and "The Interpretation of the Bible in the Church." Selected texts from the Old and New Testaments will then be studied using the Catholic Church's approach to biblical interpretation in contrast to fundamentalism. (Note: meets with MACS 610). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 420. CATHOLIC SPIRITUALITY

An exploration of the relationship between religious experience and theological reflection as seen in the works of outstanding spiritual writers of the Catholic tradition, including St. Benedict, St. Francis and St. Clare, St. John Baptist de La Salle. This will include attention to prayer, forms of spirituality, and asceticism. (Note: meets with MACS 620). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 430. GOD AND HUMAN PERSON

An investigation of the Catholic doctrine of the human person in relation to God, including topics such as creation and fall, sin and grace, justification and sanctification, and eschatological fulfillment. (Note: meets with MACS 630). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 440. CHRISTOLOGY

Understanding the person, presence and mission of Christ in Scripture, doctrine and dogma and in contemporary theology. (Note: meets with MACS 640). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 450. THEOLOGY OF SACRAMENTS AND WORSHIP

An examination of the historical development of sacramental life in the Church and theological reflection on the sacraments. This will include contemporary approaches to the theology of sacraments, especially in relation to Christology and ecclesiology. (Note: meets with MACS 650). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 460. MORAL THEOLOGY

A study of the foundations of the Christian moral life, including freedom and moral agency, moral norms and moral reasoning, the place of scripture, tradition, and authority in the moral life, virtues and development of moral character. (Note: meets with MACS 660). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 470. CATHOLIC SOCIAL ETHICS

Critical analysis of the Biblical and theological foundations for Catholic social teaching and the teachings of the Catholic Church on matters such as war and peace; the rights and duties of states and citizens; the rights, duties, and obligations of members of a family; the rights, duties, and obligations of parents with respect to their children. (Note: meets with MACS 670). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 480. CATHOLICISM AND OTHER FAITH TRADITIONS

Drawing upon the teachings of Vatican II and other ecclesial documents, this course will explore the relationship between Catholicism and other faith traditions, both Christian and non-Christian. (Note: meets with MACS 680). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 485. INTERNSHIP

Combines work in a professional field with academic consideration of the relationship of that work to Religious Studies. Prerequisite: Permission of the Religious Studies Internship Director. *One semester; one to three credits*

RS 490. ECCLESIOLOGY AND MINISTRY

A consideration of the nature and structure of the Catholic Church, including its apostolic origins, the Church as communion and sacrament, magisterium and authority, the relation of the local and universal Church, evangelization, ministry and mission. Students will reflect upon their ministry plans/work in relation to the Church's mission. (Note: meets with MACS 690). Prerequisite: any RS 300 level course and permission of the chair of Religion and Philosophy. *One semester; three credits*

RS 491-496. SPECIAL TOPICS IN RELIGION

Selected topics of interest to individual students or small groups. Prerequisite: Approval of instructor. *One semester; one to three credits*

RS 497. SENIOR SEMINAR (formerly RS 499)

This seminar, for Religion and Philosophy majors in their Senior year, introduces students to philosophical, theological, and scriptural research methods to prepare students for satisfactory completion of their Senior Projects (PHIL/RS 498). During this semester long seminar, each student will develop a research program for their senior thesis, with the semester culminating in a presentation of each student's project proposal and outline. Offered in the Fall semester. *One semester; one credit*

RS 498. SENIOR PROJECT

The senior project is a capstone independent study requirement for Senior Religion and Philosophy majors. Under the supervision of a senior project faculty advisor, each student will assemble a committee of three departmental faculty members to evaluate a research paper related to the student's previous studies in religion and/or philosophy. The final project will also be presented to the faculty of the Religion and Philosophy Department. Prerequisite: either PHIL 497 or RS 497. Offered in the Spring semester. *One semester; two credits*

■ RUSSIAN COURSES

The following foreign language courses will be offered on the campus of Rhodes College under the instruction of Rhodes faculty. See Dean of the School of Arts concerning these courses.

RUSS 101-102. ELEMENTARY RUSSIAN

Elementary grammar, reading, and conversation, supplemented by materials on Russian culture. Offered in sequence in Fall and Spring. *Two semesters; eight credits*

RUSS 201-202. INTERMEDIATE RUSSIAN

Intermediate grammar and continued training in conversation and composition, supplemented by assignments in the Language Center. Reading of Russian texts of graded difficulty. Prerequisite: Russian 102 or the equivalent. Offered in sequence in Fall and Spring. *Two semesters; eight credits*

RUSS 209/309. RUSSIAN IN RUSSIA

A 3-4 week guided encounter with the language and culture aimed at solidifying vocabulary and grammar previously acquired. A significant cultural component is part of the course. Takes place in May-June. Offered in Summer. *One semester; four credits*

RUSS 301-302. ADVANCED RUSSIAN

Advanced grammar, with greater emphasis on the refinement of conversation and composition skills. Discussion of topics related to contemporary life in Russia. Prerequisite: Russian 202 or equivalent. Offered in sequence in Fall and Spring. *Two semesters; eight credits*

RUSS 306. PHONETICS

Practice in Russian sounds, especially those that tend to be problematic for a non-native speaker. Emphasis on specific phonetic phenomena, such as palatalization and assimilation of consonants, and reduction of unstressed vowels. Examination of word stress, sentence-level stress, and intonation patterns. Corequisite: Course should be taken as early as possible in the study of Russian, but must be taken as a co-requisite with Russian 301. Offered in Fall. *One semester; one credit*

■ SOCIOLOGY COURSES**SOC 101. INTRODUCTION TO SOCIOLOGY**

An introduction to the sociological perspective. Sociology seeks to explain the origin and functioning of social behavior as it appears in such areas as the family, religion, economic structures, political structures, schools, deviant behavior, cultural norms, and other areas of human social interaction. As part of the process, students will be introduced to basic sociological terms, concepts, and theories. *One semester; three credits*

SOC 160. CULTURAL ANTHROPOLOGY (Formerly ANTH 150 and SOC 150)

(Same as ANTH 160) *One semester; three credits*

SOC 202. CONTEMPORARY SOCIAL PROBLEMS

The course focuses on a “systems approach” to social reality and provides students with the opportunity to comprehend, analyze, and evaluate social conditions, problems, and alternative solutions. Seeks to explore the critical assumptions that inform clashing views on controversial social issues. Students develop and practice skills of social policy analysis. Prerequisite: SOC 101 and Junior standing. *One semester; three credits*

SOC 270. DYNAMICS OF GENDER

(Same as PSYC 270) Prerequisite: PSYC 105 or SOC 101. *One semester; three credits*

SOC 271. SOCIOLOGY OF RELIGION (formerly SOC 371)

The study of the beliefs, practices, and organizational forms of religion using the tools and methods of sociology. Topics covered may include the relation of beliefs to social conditions, the role of religion in cultural formation and public life, religious pluralism and conflict, the nature of religious cults and sects, the influence of religion on racial, gender, and sexuality issues, and the affect modernity has on religious belief and practice. (same as RS 271). Prerequisite: SOC 101. *One semester; three credits*

SOC 280-287. SELECTED TOPICS IN SOCIOLOGY

Directed research on a special topic or project in sociology. *One semester; one to three credits*

SOC 290-299. HONORS SPECIAL TOPICS

Special topics in behavioral sciences open to members of the Honors Program or by permission of the instructor. *One semester; one to four credits*

SOC 301. MEDICAL ANTHROPOLOGY (Formerly ANTH 305 and SOC 305)

(Same as ANTH 301) *One semester; three credits*

SOC 310. DEATH AND DYING

(Same as PSYC 310) *One semester; three credits*

SOC 320. HONORS SEMINAR: DEATH AND DYING

(Same as PSYC 320) Prerequisite: Membership in Honors Program or special permission of instructor. *One semester; three credits*

SOC 325. TOPICS IN AGING

(Same as PSYC 325) Prerequisite: PSYC 105 or SOC 101. *One semester; three credits*

SOC 345. HUMAN SEXUALITY

(Same as PSYC 345) Prerequisite: PSYC 105 or SOC 101. *One semester; three credits*

SOC 350. GLOBAL HEALTH

The course will introduce students to the main concepts of the public health field and the critical links between public health and social and economic development. Students will get an overview of the determinants of health, how health status is measured, and the influences of various factors, including social, economic, and political issues on the health of individuals and of communities. It will also introduce students to key concerns regarding nutrition, reproductive health, infectious diseases, and chronic diseases. Material will include key concepts, be practical in orientation, and global in coverage, but with an important focus on the developing world and on the health of the poor. (Same as ANTH 350). *One semester; three credits*

SOC 351. SOCIOLOGY OF THE FAMILY

A survey of changes in family systems over the years. Areas of study include courtship, love, mate selection, parenthood, and family problems. The course also examines cross-cultural comparisons and considers alternatives to traditional family forms. Emphasis is placed on the use of the empirical evidence to evaluate popular beliefs. *One semester; three credits*

SOC 353. SOCIAL PSYCHOLOGY

(Same as PSYC 353) Prerequisite: PSYC 105 or SOC 101. *One semester; three credits*

SOC 362. SOCIOLOGY OF ADDICTION

A social scientific approach to the nature, role, and effects of chemical and psychological addiction in society. Explores a variety of addiction issues as they relate to the social institutions of family, education, politics, and medicine. Prerequisite: SOC 101. (Same as CJ 362) *One semester; three credits*

SOC 365. DEVIANT BEHAVIOR

An exploration of theoretical perspectives on deviance, problems in defining deviance and specific categories of deviance. Deviant behaviors discussed may include but are not limited to prostitution, gambling, transgenderedness, pornography, mental illness, sexualities, and physical disability. (Same as PSYC 365) *One semester; three credits*

SOC 380-387. SELECTED TOPICS IN SOCIOLOGY

Directed work on a special topic or project in Sociology. *One semester; one to three credits*

SOC 390-396. HONORS SPECIAL TOPICS IN SOCIOLOGY

Directed work on a special topic or project in Sociology open to members of the Honors Program or by permission of the instructor. *One semester; one to three credits*

SOC 450, 451. INDEPENDENT RESEARCH IN SOCIOLOGY

These courses are intended for advanced (junior status or higher) students who wish additional experience in research. In SOC 450 the student will investigate in depth a specialized topic in sociology or a related discipline (e.g., anthropology, criminal justice). In SOC 451 the student will further investigate the topic by engaging in empirical research that is then analyzed, interpreted, and presented in a manuscript. These courses are recommended for students who may intend to continue their education in a graduate program. Prerequisites: Permission of instructor and the Chair of Behavioral Sciences. *One to two semesters; one to three credits each*

SOC 480-487. ADVANCED TOPICS IN SOCIOLOGY

Directed work on a special topic or project in Sociology. *One semester; one to three credits.*

■ SPANISH COURSES**SPAN 101, 102. ELEMENTARY SPANISH**

Fundamentals of grammar and syntax. Intensive drills in understanding, speaking and reading. Fluency of oral-aural skills is the main objective. Not open for credit to native speakers of Spanish. Offered in sequence in the Fall and Spring. *Two semesters; six credits*

SPAN 103, 104. SPANISH CONVERSATION AND CULTURE I

Fundamentals of Spanish grammar and conversation applied to a specific cultural context, such as business. Does not fulfill the language requirement for Arts majors. Offered in sequence in the Fall and Spring. *Two semesters; six credits*

SPAN 201, 202. INTERMEDIATE SPANISH

Continued attention to essentials of grammar and composition. Readings in the short story and cultural texts. Not open for credit to native speakers of Spanish. Prerequisites: SPAN 101, 102. Offered in sequence in the Fall and Spring. *Two semesters; six credits*

SPAN 203, 204. INTERMEDIATE SPANISH CONVERSATION AND CULTURE

Intermediate level Spanish grammar and conversation applied to a specific cultural context, such as business. Prerequisites: SPAN 103, 104 or the equivalent. Does not fulfill the language requirement for Arts majors. *Two semesters; three credits*

SPAN 301, 302. COMPOSITION AND CONVERSATION

Continued study of Spanish grammar and composition. Drill on difficult constructions and theme writing. Reports and discussions on selected aspects of Hispanic civilization. Not open for credit to native speakers of Spanish. Prerequisites: SPAN 201, 202 or the equivalent. Offered in sequence in the Fall and Spring. *Two semesters; six credits*

SPAN 313, 314. SPANISH LITERATURE AND CIVILIZATION

The study of the cultures of Spain and Latin America as reflected in their history, literature, and art from their origins to the present. Prerequisite: Two years of college Spanish or equivalent. Offered in sequence in the Fall and Spring. *Two semesters; six credits*

SPAN 316. BUSINESS SPANISH

An introduction to business and technology in the Spanish-speaking world from a personal, everyday life perspective. Study includes banking, telecommunications, computers, the Internet, corporate organization, interviewing, resume writing, and business correspondence. Prerequisite: Two years of college Spanish or the equivalent. Offered in the Spring semester. *One semester; three credits*

SPAN 380-389. SPECIAL TOPICS IN SPANISH.

Topics of special interest related to Spanish literature, language, or culture. Prerequisite: Spanish 302 or 314 and permission of instructor. Offered in Fall or Spring. *One semester; one to three credits*

SPAN 400-410. RESEARCH TOPICS IN SPANISH

Original writing projects or independent study and research in literature, pursued under the guidance of a member of the Spanish faculty. Syllabus and credit hours contracted by the student with the Spanish professor. *One semester each; one to three credits*

SPAN 480-489. SPECIAL TOPICS IN SPANISH.

Topics of special interest related to advanced study of Spanish literature, language, or culture. Prerequisite: Spanish 302 or 314 and permission of instructor. Offered in Fall or Spring. *One semester; one to three credits*

■ SPEECH COURSE**SPCH 125. SPEECH COMMUNICATION**

A study of the principles of public speaking. Emphasis placed on differences between spoken and written language, organization, persuasive argument, and delivery skills. *One semester; three credits*

■ SPORTS MANAGEMENT COURSES

Requirements for the concentration are found on Page 66.

SMGT 300. SPORT FACILITY AND EVENT MANAGEMENT

Designed as an in depth study of the managerial activities related to sport facilities and even operations. This course will focus on facility design, planning, personnel, marketing facilities and events, developing revenue streams, scheduling, and operating. An emphasis is placed on utilizing available resources to achieve organizational goals. Offered in the Fall semester. Prerequisites: MIS 153 and Junior standing. *One semester; three credits*

SMGT 301. SPORT SPONSORSHIP AND SALES

Designed as an exploration of strategies and tactics utilized to sell and generate revenue in the business cycle. This course will focus on sales proposal development, sponsor solicitations, licensing rights, new business development, endorsements and corporate partnerships. The course also provides an examination of ticket sales department structure, techniques, and strategies Offer in the Spring semester. Prerequisites: MIS 153 and Junior standing. *One semester; three credits*

SMGT 410. MANAGEMENT OF SPORTS INDUSTRIES

Focuses on management concepts and business skills as they relate to the sports industry. An in-depth look at the organizational structure and method of operation of major sectors of the sports enterprise, examination of important contemporary issues in the sports industry and other administrative aspects of sports enterprises. Prerequisite: permission of the Dean of the School of Business. Offered in the Spring Semester. *One semester; three credits*

SMGT 420. MARKETING AND PUBLIC RELATIONS IN SPORTS

This course introduces students to marketing and public relations skills crucial to success in every sports business and examines the unique features of sports marketing that set sports apart from other industries. Prerequisite: permission of the Dean of the School of Business. Includes marketing sport as a product and marketing non-sport products using sport as a promotional tool. Offered in the Fall Semester. *One semester; three credits*

SMGT 430. SPORTS INDUSTRIES AND THE LAW

Focuses on an analysis of legal problems and issues confronting the sports manager including suits against the organization, safety, collective bargaining and arbitration. Includes contract law, tort law, labor law, and administrative law as they apply to the sports industry. Prerequisite: permission of the Dean of the School of Business. Offered in the Fall Semester, beginning 2009-2010.

SMGT 440. FINANCIAL MANAGEMENT FOR SPORTS ADMINISTRATION

An examination of financial methods and procedures as they apply to sports administration, taxation, purchasing cost analysis, budgeting, and the financial problems associated with mass media. Topics covered include accounting principles, financial statements, industry ratios, securing funds and related concepts that help determine the viability and strength of businesses in the sports industry. Prerequisite: permission of the Dean of the School of Business. Offered as needed.

SMGT 455. PRACTICUM AND PROJECT IN SPORTS MANAGEMENT

This course is designed to explore and put to practical use the entire body of knowledge gained in previous SMGT courses. Project Management concepts will be covered, including use of project management tools. A comprehensive project will assess the student's ability to apply classroom principles and skills to specific problems in the sports industry. Prerequisite: SMGT 410 and SMGT 420. Offered as needed.

■ STATISTICS COURSES

STAT 221. ELEMENTARY BUSINESS STATISTICS (Formerly BUS 221)

A basic course in general statistical methods with applications in the field of business and economics. Content includes analysis of data in terms of measures of central tendency or averages, measures of dispersion and skewness, probability theory, and basic aspects of tests of hypotheses. Prerequisite: MATH 105 and MIS 153. Offered in both Fall and Spring semesters. *One semester; three credits*

STAT 221L. ELEMENTARY BUSINESS STATISTICS LABORATORY

Laboratory experience to illustrate and explain the principles covered in STAT 221. Corequisite: STAT 222. *One semester; zero credits*

STAT 222. INTERMEDIATE BUSINESS STATISTICS (Formerly BUS 222)

A further study in statistical methods and its application in the field of business and economics. The course content consists of additional analysis on testing hypotheses; basic quality control evaluation; time series analysis including trend, seasonal and cyclical computations; index numbers, linear regression and correlation with an introductory approach to non-linear, multiple, partial and rank correlation. Prerequisite: MATH 105, MATH 106, MIS 153, STAT 221 and STAT 221L. Corequisite: STAT 222L Offered in both Fall and Spring semesters. *One semester; three credits*

STAT 222L. INTERMEDIATE BUSINESS STATISTICS LABORATORY

Laboratory experience to illustrate and explain the principles covered in STAT 222. Corequisite: STAT 222. *One semester; zero credits*

■ THEATRE COURSES

THEA 107-108; 207-208; 307-308; 407-408. THEATRE PRODUCTION WORKSHOP I

A set of practical courses which provide instruction and lab in five areas of theatre production: Costumes/Make-up; Acting/Directing; Scenery/Props; Light/Sound; and Publicity/Management. A minimum of 45 lab hours plus a written summary of the student's experience is required. Offered in the Fall and Spring. *Eight semesters; one credit each*

THEA 115. INTRODUCTION TO THE THEATRE

A brief but comprehensive study of the theatre, designed to arouse a wide range of interests—critical, historical, artistic—needed for a well-rounded

appreciation of the whole. Includes attendance at plays for evaluation. *One semester; three credits*

THEA 127-128; 227-228; 327-328; 427-428. THEATRE PRODUCTION WORKSHOP II

A set of practical courses which provide instruction and lab in five areas of theatre production: Costumes/Make-up; Acting/Directing; Scenery/Props; Light/Sound; and Publicity/Management. A minimum of 90 lab hours plus a written summary of the student's experience is required. Offered in the Fall and Spring. *Eight semesters; two credits each*

THEA 221. ACTING

Introduction to the craft of acting with focus on elementary techniques and principles. Designed to meet the needs of those directly concerned with theatre production but valuable also for students seeking to make better use of imagination and poise in social and professional situations. Taught primarily through improvisation with exercises in relaxation and techniques of body and voice flexibility and control. Offered in the Fall semester. *One semester; three credits*

THEA 231-239. SPECIAL TOPICS IN THEATRE

Topics in the areas of speech or theatre, based on special interest of students or special expertise of faculty. No prerequisite. *One semester; one to three credits*

THEA 315. HISTORY OF THE THEATRE

An in-depth study of the theatre including samples of dramatic literature from ancient Greece to the present. (Same as ENG 315) *One semester; three credits*

THEA 317. FIELD STUDY IN LIVE THEATRE

A study of live theatre. The plays covered will be seen during the semester at local Memphis theatres. Emphasis will be placed on contact with the professional theatre as well as opportunities to analyze and discuss the productions seen. *One semester; three credits.*

THEA 377. ORAL INTERPRETATION OF LITERATURE

The development of responsiveness to prose, poetry, and drama and the ability to communicate the logical, emotional, and aesthetic elements to others. Students certifying in elementary education will study children's literature in the content of this course. *One semester; three credits*

THEA 401-402. INDEPENDENT STUDY IN THEATRE

An individual study project that will have as its end result the presentation of a well researched thesis or an approved project in Fine Arts. Syllabus and credit hours contracted by the student with the Chair of the Visual and Performing Arts program. Offered in the Fall and Spring. *One semester each; one to three credits*

THEA 421-426. SPECIAL TOPICS IN THEATRE

Topics in the areas of speech or theatre, based on special interest of students or special expertise of faculty. *One semester each; one to three credits each*

THEA 475. SENIOR RECITAL

Rehearsal of monologues or concert theatre piece culminating in performance before an audience. Program will be evaluated and approved by instructor prior to public performance. Written work includes script analysis, character profiles, and detailed written critiques of videotapes of performances. *One semester; three credits*