

Minor in Recreation Requirements: REC 310; REC 320; REC 317; REC 335; REC 316; REC 323.

Other courses offered by the department may make up an area of concentration (18 semester hours), or may be taken by other students to broaden their interest and knowledge.

Graduation Requirements – A minimum 2.0 grade point average and a minimum of 120 hours, excluding any developmental courses are required for graduation.

Health and Physical Education

A service area non-degree program offering courses in health and physical education which are required of all students.* Courses provide a varied program in health and in sports activities relate to lifelong interests.

(*Approval of the department chair allows disabled students to attend class as an administrative assistant, or take an academic course within the department to meet the physical education requirements. Veterans are exempt from physical education requirements but also receive no credit. They are not exempt from the health requirement.

COURSE DESCRIPTIONS

AAS210 African American Experience in Global Context 3.0 credits. The course is a sophomore level interdisciplinary course in which the major themes of the general education program are explored in an interdisciplinary format. This course considers the thematic connections between the experiences and intellectual thought of African Americans and other peoples from across the globe and examines African American history in the context of world peoples of African descent. This course does not satisfy the African American Heritage or Global Studies General Education requirement. *Prerequisite: None. (Core General Education Course).*

BAA 233 Intermediate Accounting I 3.0 credits. Topics covered include accounting theory, the accounting cycle, the income statement, the balance sheet, the statement of cash flows, cash, receivables, payables, and inventories. *Prerequisite: BCA 120 with a grade of C or better. Offered: Fall Term.*

BAA 242 Intermediate Accounting II 3.0 credits. A continuation of BAA 233. Topics include plant and equipment, intangibles, investments, long-term liabilities, leases, stockholders' equity and pension accounting. *Prerequisite: BAA 233 with a grade of C or better. Offered: Spring term.*

BAA 355 Cost Accounting 3.0 credits. Topics include manufacturing accounting, cost-volume-profit relationships, job costing in services and manufacturing, budgeting, activity-based costing, standard costing, direct costing and absorption costing. *Prerequisite: BCA 120. Offered: Fall term.*

BAA 467 Auditing 3.0 credits. Procedures of internal auditing and public accounting in verifying statements and supplementary data. The practicality and significance of the auditor's report is an integral part of the course. *Prerequisite: BCA 120.*

BAA 476 Advanced Accounting 3.0 credits. Topics covered include partnerships, home office-branch, consolidated financial statements, government accounts and non-profit accounting. *Prerequisite: BCA 120. Offered: Spring term.*

BCA101 Introduction to Business Environment 3.0 credits. This course is designed to help students gain insights into the various facets of operations in a business including technology, banking, finance, accounting, marketing, small business, and international business. *Prerequisite: None.*

BCA111 Principles of Accounting I 3.0 credits. Introduction to basic accounting concepts. Assets and equities; the accounting cycle; adjustments; and procedural differences in accounting for individual, proprietorships, partnerships, and corporations. *Prerequisite: None.*

BCA 120 Principles of Accounting II 3.0 credits. A continuation of BCA 111 with an emphasis on control of the enterprise. Manufacturing accounting, internal flows of financial data and its uses for management planning and control: and financial analysis. *Prerequisite: BCA 111.*

BCA 210 Introduction to Management 3.0 credits. Principles that form the basis of modern management methods; behavioral and quantitative methods of management; classical roots of management thought and theory; application of modern concepts of behavioral theory to management problems; introduction to current quantitative methods as applied to managing modern operations. *Prerequisite: None*

BCA 211 Financial Management 3.0 credits. The theory and practice of business finance. Among topics covered are capital budgeting, working capital management, capital structure, dividend policy, and the decision-making process. *Prerequisite: MAT 111.*

BCA 212 Marketing I 3.0 credits. Structure and processes of marketing; major marketing policies concerning the product, market, distribution channels, field selling; advertising promotion, and pricing. *Prerequisite: None.*

BCA 214 Business Communication 3.0 credits. Focus on the practical side of communications as it applies to the business setting and focuses on writing as a process. Instruction for producing well designed business documents, preparing effective multi-media presentations, and participating productively in a number of business settings. Course reflects current management concepts, organizational trends, international business and ethics based on extensive research in office systems, information management, technology, communications, and administrative procedures. *Prerequisite: None.*

BCA 240 Business Statistics 3.0 credits. Topics include data structure, graphical description of data, numerical descriptive measures, probability, sampling, inference and estimation. Computer software will be utilized. *Co/Prerequisite: MAT104 with a minimum grade of D or better.*

BCA 250 International Business 3.0 credits. Basis of trade, international business mechanism, economic, social, cultural, legal, and technological forces in international business environment. *Prerequisite: None.*

BCA 301 Mutual Fund Accounting 3.0 credits. This course is an introduction to the basics of mutual fund accounting. It covers topics such as capital share transactions and provides a thorough understanding of the process necessary for the valuation of securities such as equities, bonds, convertible bonds, tax-exempt bonds, and money market securities. The effect of federal taxation on transactions is also covered. *Prerequisite: BCA 111, BCA 120.*

BCA 330 Computer Programming Management Information Systems 3.0 credits. An overview of current microcomputer office technology and future trends in business. The course provides an understanding of how microcomputers improve office/management productivity through appropriate application. Includes integration of discipline specific software. *Prerequisite: None.*

BCA 331 Business Law 3.0 credits. Introduction to the nature and development of law and the legal process. The law of contracts, formation, operation and discharge, bailments and carriers. Social values and their effects on the operation of business and the responsibilities of executives. *Prerequisite: None.*

BCA420 Business Policy Seminar 3.0 credits. Capstone course. Top management decision-making involved in strategic planning and overall company policy formulation and administration. *Prerequisite: Senior standing.*

BEC 201 Economics I 3.0 credits. The fundamentals of macroeconomics affecting our daily lives: inflation, unemployment; and growth and income. *Prerequisite: MAT 104. (Social Science General Education Course).*

BEC 202 Economics II 3.0 credits. The subject from the micro-economic approach: business enterprise, demand and supply, market price formation, costs, competition and monopoly, and government and business. *Prerequisite: MAT 104. (Social Science General Education Course).*

BEC 300 Public Finance 3.0 credits. Taxation and spending policies of state and local governments, the federal government, fiscal policy as tool of welfare policy, fiscal policy, and inflation or recession. Theoretical and empirical problems are discussed. *Prerequisite: BEC 201.*

BEC 305 Money and Banking 3.0 credits. Money, credit, banking systems, foreign and domestic exchange business cycles, and fiscal-monetary policies. Experiences in the U.S. are emphasized. *Prerequisite: BEC 201.*

BEC 310 Macroeconomics 3.0 credits. An Advanced treatment of income determination, unemployment, inflation, and monetary and fiscal policies. *Prerequisite: BEC 201.*

BEC 311 Intermediate Micro 3.0 credits. An advanced treatment of demand and supply, price determination, profit maximization under different market structures, production function; linear programming, input-output analysis, and government policies towards business. *Prerequisite: BEC 202.*

BEC 400 Economic Development 3.0 credits. An analysis of economic problems of underdeveloped countries; capital formation, resource allocation, industrialization versus

agriculture, the role of markets and planning, integration with world economy. *Prerequisite: BEC 201, BEC 202.*

BEC 407 International Economics 3.0 credits. Basis of trade, factor prices and income in an open economy, tariffs, foreign exchange markets, balance of payment equilibrium and adjustment, international financial institutions and policy. *Prerequisite: BEC 201, BEC 202. Recommended BEC310, BEC311.*

BEC 416 Intro Econometrics 3.0 credits. Estimation of relationships in a single equation and simultaneous equation systems. Development of models and forecasting. *Prerequisite: None.*

BEC 444 Economics of Black Community Dev 3.0 credits. The critical problems of rapid technological change, rigid product prices in American growth, and their effect on the well-being of the labor force, with particular reference to the black community. *Prerequisite: BEC 201.*

BFA120 Personal Financial Management 3.0 credits. This course is a freshman level elective course which will provide students with the knowledge they need to become financially astute. This course will introduce students to the practical aspects of money management, including discussion of insurance, savings and investment options. *Prerequisite: None.*

BFA220 Financial Management II 3.0 credits. The analysis of financial decisions and the formulation of financial policy are stressed. The subjects covered include intermediate and long-term sources of funds, the cost of capital, and capital structure. *Prerequisite: MAT 111.*

BFA 333 Investments 3.0 credits. The principles and practices of investment with special attention to securities legislation, sources of investment information, investor risk-return analysis, timing of investment decisions, analysis of investments, and investment planning and strategies. *Prerequisite: MAT 111, MAT 211, and BCA 120 recommended.*

BFA 342 Financial Markets and Institutions 3.0 credits. The role of the principal financial markets and their relationship to the economy through study of fund flows and analysis of financial institutions. *Prerequisite: BEC 201, Recommended BCA 211.*

BFA 364 Seminar in Corp Finance & Control 3.0 credits. A critical study of internal financial management of business enterprises based primarily on comprehensive case analysis and current financial issues. *Prerequisite: BFA 220.*

BFA 366 Real Estate Finance 3.0 credits. Sources and methods of obtaining funds for real estate investment; private and governmental financial institutions of real estate, legal, and tax considerations; the construction industry and cycles; and real estate investment policies and current practices. *Prerequisite: BCA 120.*

BFA 367 Commercial Bank Mgmt 3.0 The structure, organization, administration, and regulation of commercial banks; sources and uses of funds; and portfolio policy. *Prerequisite: BCA 211 and BEC 201.*

BFA 369 International Financial Management 3.0 credits. Financial constraints of the international environment and their effect on standard concepts of financial management. Study of international currency flow and international banking practices. *Prerequisites: BCA 211.*

BFA 455 Security Analysis 3.0 credits. Coverage includes risk-return analysis, the analysis of bonds and common stocks, options, portfolio theory, and selection. *Prerequisite: BFA 211.*

BMG 321 Organization Theory and Design 3.0 credits. The study of the theories and concepts of organizing and designing organizations. *Prerequisite: BCA210.*

BMG 323 Personnel Management 3.0 credits. Policies and practices of work force management: recruiting, selection, training, motivation, and collective bargaining. *Prerequisite: None. Offered Fall term.*

BMG 332 Organizational Behavior 3.0 credits. Study of the social science disciplines – psychology, sociology, anthropology, social psychology, as they contribute to understanding and predicting human behavior in organizations – learning, motivation, perception, attitudes, cognition, and their implications for management. *Prerequisite: MAT 104. Offered: Spring term.*

BMG 334 Operation Management 3.0 credits. Introduction to design, planning, scheduling, and control of the organization at the operating levels charged with the production and physical distribution of goods or services. Relevance to tall functional areas emphasized. *Prerequisite: BCA 210, MAT 111.*

BMG 422 Mgt Seminar 3.0 credits. Management concepts as they relate to contemporary problems. An independent research project is required. Restricted to seniors. *Prerequisite: nine credit hours in management.*

BMG 445 Management Labor Relations 3.0 credits. Describes the relationship between management and the labor force, both where that relationship is governed by a collective bargaining agreement and where it is not. Includes development of the social and legal status of trade unions, organizing, negotiations, strikes, grievance procedure, and union security. *Prerequisite: BCA210.*

BMG 457 Organizational Development 3.0 credits. Problems of a manager in a changing organization. The problems of rapid growth, and the needs for development of organizations utilizing organization theory. *Prerequisite: None.*

BMT 321 Sales Management 3.0 credits. The nature and scope of sales management and the role of the sales manager as an administrator-recruiting, selection, training, motivation, supervision, compensation, control and evaluation of salesperson, sales planning and analysis, and social responsibilities. *Prerequisite: BCA 212.*

BMT 333 Buyer Behavior 3.0 credits. A survey and integration of concepts and theories that help to explain the purchasing behavior of consumers and organizational buyers and the strategic implications of these behaviors. *Prerequisite: BCA 212.*

BMT 342 Principles of Retailing 3.0 credits. An introduction to retailing, vital factors including classification of retail businesses, consumer behavior, store organization, store layout, store location, retailing, and racial minorities, etc. *Prerequisite: BCA 212. Offered: Fall term.*

BMT 344 Principles of Salesmanship 3.0 credits. Techniques of successful selling. The psychological steps of the selling process and developing skills needed in creative selling. A sales demonstrating incorporation visual aids is required of all students. *Prerequisite: BCA 212. Offered: Fall term.*

BMT 455 Advertising 3.0 credits. An introduction to the principles and practices of advertising. The role of advertising in the marketing mix. Psychology of advertising, planning and creating the advertisement (copy, visualization, layout, printing techniques, and selection of the media.) *Prerequisite: BCA 212.*

BMT 459 Retail Management 3.0 credits. Critical analysis of retailing strategy and management. The trade, area, store layout, merchandise assortment, promotion, pricing, and cost. *Prerequisite: BCA 212. Offered: Spring term.*

BMT 460 Marketing in Urban Areas 3.0 credits. Current marketing problems in urban areas: assessment of the results of research and action projects; an investigation of the legal, ethical, and social aspects of marketing a focus on the minority consumer and the minority entrepreneur. *Prerequisite: BCA 212.*

BMT 467 Marketing Research 3.0 credits. Methods, analysis, and application of marketing research techniques to marketing problems. The methodology of survey research results and secondary data. Students are required to prepare a research report. *Prerequisite: BCA 212.*

BMT 468 Marketing Management 3.0 credits. Application of quantitative and behavioral techniques to the development of marketing programs. Strategic decision-making and analysis regarding marketing policies concerning product, customers, distribution channels, field selling, advertising and promotion, technical service, and pricing. *Prerequisite: BCA 212. Offered: Spring term.*

BOA 460 Business Internship 3.0 – 6.0 credits. An individual work-study experience in an approved commercial or institutional organization in line with the student's concentration. Students will meet periodically with the instructor to discuss problems and issues relevant to the area. Compensation may not be granted for the internship. *Prerequisite: Junior Standing.*

BOA 323 Office Sys & Tech 3.0 credits. Overview of office systems and technologies – within an organizational and environmental context. Improvement of productivity and the management of these resources through appropriate application of major technologies and techniques that support information creation through distribution are covered. *Prerequisite: None.*

BSB 211 Small Firm Management 3.0 credits. Problems peculiar to small companies in retailing, manufacturing, and the service industries. Emphasis on management of an existing business and on its relations with financial and legal institutions. Case studies used extensively. *Prerequisite: BCA 210.*

BSB 320 Entrepreneurship 3.0 credits. The creative aspects of entrepreneurship and starting a small business enterprise. Ways in which a small firm can fulfill needs of consumer and industrial markets. Problems involved in working with venture capitalists, banks, investment institutions, distributors, and sales representatives. Policies relating to marketing production and purchasing, pricing, personnel and financing. *Prerequisite: BCA 210.*

BSB 322 Finance Mngmnt Sm Firm 3.0 credits. Methods for raising capital funds, cost controls, and cash management. Diversification possibilities through expansion or merger with other companies. *Prerequisite: BCA 211.*

BSB 323 Environ of Small Firm 3.0 credits. Environmental forces which affect small firm operations; relationships with competitors, government, and community agencies. *Prerequisites: BCA 210.*

BSB 435 Seminar Small Firm 3.0 credits. Opportunities to work in the field and to develop a full and complete business plan. *Prerequisite: six credit hours of Entrepreneurship courses.*

BTX 220 Fe Income Tx (Corp) 3.0 credits. Procedures relating to the determination of taxable income and reporting qualifications for corporations, partnership, sub-chapters, estates, and trusts. *Prerequisite: None. Offered: Fall term.*

BTX 221 Federal Income Tax (Individual) 3.0 credits. Principles and procedures relating to the determination of taxable income of individuals. *Prerequisite: BCA 120. Offered: Spring term.*

BTX 333 Tax Planning for Business 3.0 credits. Tax laws and current tax practices pertaining to formation, division, reorganization, and liquidation of business. *Prerequisite: BTX 220.*

CIS 100 Basic Principles of Computers 3.0 credits. Emphasis is on the use and capabilities of the microcomputer with daily opportunity for individual "hands-on" experience with word processing, spreadsheet, and database software applications. Discussions on designing and developing problem solutions are emphasized. *Prerequisite: None.*

CIS 101 Computer Programming I 3.0 credits. The use, capabilities, and limitations of digital computers are introduced. Computer operations and the formulation of procedures to solve problems are accomplished through the use of the programming language; C. Topics include C data types, formatted and character I/O, C operators, expressions and statements. Looping control structures, decision structures and user-written functions are covered in lecture and are supplemented with lab exercises to provide practical experience in writing, compiling and debugging C programs. *Prerequisite: CIS 100.*

CIS 102 Computer Programming II 3.0 credits. C and C++ programming languages are used with a variety of applications in the public and private sectors. Course coverage includes the discussion of input/output techniques, files, records, and data types. The student will write and compile several programs to illustrate these features. Emphasis is on structured programming, algorithmic development, decision structures, repetition structures, functions and arrays. The student will write and compile several programs to illustrate these features. *Prerequisite: CIS 101.*

CIS 103 Information Structures 3.0 credits. The basic concepts of information modeling structures includes linear lists and multi-linked structures, storage management, programming language implementation structures, sorting and searching and examples of the use of information structures in an object-oriented programming environment. *Prerequisite CIS 106.*

CIS 104 Computer Organization 3.0 credits. Assembly language macros include the use of input/out facilities; interrupt systems; loaders; and memory addressing techniques. The basic architecture of the computer hardware is examined through the use of sample programs, the assembly process and the debugger. *Prerequisite: CIS 106.*

CIS 105 Basic Assembler Language 3.0 credits. Course coverage includes an introduction to assembly language programming. The discussion of number systems; memory organization and addressing data and instruction formats; data manipulation; comparison and branching;

instruction and address generation; file definition; input/output macros; and fixed point arithmetic is illustrated through several programming assignments. Emphasis is placed upon the understanding of the overall assembly process. *Prerequisite: CIS 101.*

CIS 106 Computer Programming III 3.0 credits. The necessary skills and concepts in analyzing and solving problems are continued through the use of C++. Proficiency in the further design, coding, debugging, and documenting of programs to solve problems using the object-oriented programming paradigms. Topics include multi-dimensional arrays, classes, records, and file handling. *Prerequisites: CIS 102.*

CIS 201 Programming Languages 3.0 credits. The study of programming languages examines the essential concepts that are common to modern programming languages. A broad range of issues is considered. Techniques for formal specification of syntax are presented. Several essential features of modern programming languages are discussed, including information binding, control structures, scope rules, data types and data abstraction, concurrency, recursion, input/output, and execution environment. Four different computational models or paradigms for programming languages are considered: the imperative, functional, logic-oriented and object-oriented models. Examples are drawn from a number of existing languages, such as Ada, LISP, FORTRAN, COBOL, Pascal and C. *Prerequisite: CIS 103.*

CIS 211 Computer Operating Systems 3.0 credits. Study includes the basic principles of operating system design and implementation. Consideration is given to the general architecture of several representative computer systems; management of memory, processors and devices; file systems; protection; operating systems design techniques; performance measurement and evaluation. A case study of a representative operating system is used to illustrate these principles. *Prerequisite: CIS 103.*

CIS 215 Fund Struct of Computer Science I 3.0 credits. This course introduces students to the fundamental scientific concepts that underlie computer science and computer programming. Software concepts such as abstraction, representation, correctness, and performance analysis are developed and are related to underlying mathematical concepts. Students are asked to apply these concepts to programming problems throughout the course. *Prerequisite: CIS 105.*

CIS 231 Compiler Construction 3.0 credits. The study of compilers through programming language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements is covered. The organization of a compiler includes compile-time and scan-time, symbol tables, lexical scan, syntax scan, object code generation, errors, diagnostics, object code, optimization techniques, and overall design. This is illustrated through the use of compiler-writing languages and bootstrapping. *Prerequisite: CIS 103.*

CIS 311 System Simulation 3.0 credits. Study includes an introduction to simulation and a comparison of various techniques such as discrete simulation models, queuing theory and stochastic processes. Coverage includes simulation languages and simulation methodology for the generation of random numbers, design of simulation experiments for optimization, analysis of data generated by simulation experiments and the validation of simulation models and results. *Prerequisite: CIS 211.*

CIS 321 Information Organ and Retrieve 3.0 credits. The structure of semi-formal languages and models for the representation of structured information includes aspects of natural language processing on digital computers. The analysis of information content by

statistical, syntactic, and logical methods is studied. Search and matching techniques, automatic retrieval systems, question/answering systems, production of secondary outputs and the evaluation of retrieval effectiveness is also studied. *Prerequisite: CIS 102.*

CIS 330 Algorithms & Fortran 3.0 credits. Study includes an introduction to abstract algorithms and to their design, analysis, and realization. The goal of the course is to develop skill with practical algorithm design and analysis techniques and to develop the ability to apply these techniques to the construction of real systems using the FORTRAN programming language. *Prerequisite: CIS 103.*

CIS 331 Theory of Computability 3.0 credits. Turing machines, unsolvability results, and the halting problem are discussed. Consideration is given to the study of machines with restructured memory access, limited memory, and limited computing time. Study also includes recursive function theory and complexity classification. Comparisons of searching and sorting techniques are studied through the use of computation models including relationships to algorithms and programming. *Prerequisite: CIS 101.*

CIS 401 Topic Computer and Information Science 3.0 credits. A seminar course which includes topics that are determined by students and instructors. This course may be taken more than once if topics are different. *Prerequisite: None.*

CIS 403 Topics Java 3.0 credits. Seminar in which topics are determined by students and instructors. *Prerequisite: None.*

CIS 413 Software Eng Using Ada 3.0 credits. The student studies the nature of the program development task when many people, many modules, many versions, or many years are involved in designing, developing, and maintaining the system. The issues are both technical (e.g., design, specification, version control) and administrative (e.g., cost cooperative creation and elementary management). The course will consist primarily of working on the cooperative creation and modification of software systems. *Prerequisite: CIS 103.*

ECE 121 Early Childhood Component I 3.0 credits. Early Childhood Component I allows for the study of the child from birth to two years old. Students learn how to create appropriate learning environments for infants and toddlers based upon sound child development principles, and techniques for administering and supervising infant-toddler programs. Current trends and research in infant-toddler education are also presented. Participation in related field experiences is required. *Prerequisite: None.*

ECE 122 Early Childhood Component II 3.0 credits. Early Childhood Component II is an in-depth study of the child from two to five years of age focusing on social, emotional, and physical development. Topics discussed in the course include communication between parents and teachers, community resources available for the enrichment of the learning environment, and providing cross-cultural, non-sexist education. *Prerequisite: ECE 121.*

ECE 123 Early Childhood Component III 3.0 credits. Early Childhood Component III is a continued in-depth study of the child from two to five years of age. Topics discussed in the course include effective procedures for setting goals in the preschool, techniques for fostering creativity in play and thought, developing reading and language skills, and designing lesson

plans for young children. Current trends and research in each of these areas are reviewed.
Prerequisite: None.

ECE 131 Early Childhood Education 3.0 credits. Introduction to Early Childhood Education addresses the history, primary issues, and trends in early education for young children. Topics reviewed in the course include early childhood delivery systems, the process of evaluating early childhood programs, and the socio-cultural aspects of educating young children. *Prerequisite: None.*

ECE 162 Contemporary Programs in Early Childhood 3.0 credits. An introduction to the administration and supervision of early childhood programs. Contemporary issues concerned with the education of young children are discussed; candidates complete research in the field of early childhood education. Related field experiences provide opportunities for student participation in programs for young children. *Prerequisite: None.*

ECE 300 Family, School, and the Community 3.0 credits. This course explores approaches to working effectively with families and communities. Students develop problem-solving skills by exposing them to challenging situations that require them to negotiate sensitive issues. Opportunities are provided to work in schools and communities to develop valuable communication and interpersonal skills when dealing with families with very different backgrounds from their own. The application of research skills to develop a better understanding of families and communities and to use information to develop family involvement activities and to create supplemental materials for classroom use is also emphasized. *Prerequisite: None.*

EDU 110 Introductory Interpretation and Analysis 3.0 credits. This course serves as a college-level reading course in which students critically read and analyze difficult texts, and gain proficiency in interpreting, paraphrasing, and evaluating the written word. *Prerequisite: None.*

EDU 211 Introduction to Teaching 3.0 credits. Introduction to the teaching profession for students who are considering teaching as a career choice. Students investigate the teaching profession in very specific ways by assessing the meaning of professional and profession; their motives and aptitudes for teaching; the challenges teachers face in striking a balance between emphasizing achievement and the improvement of society; the need for teachers to become involved in facilitating the growth and development of students; and the conditions and teacher behaviors that contribute to positive learning environments. The course concludes with a discussion of professional organizations and associations; integrity and ethical behavior; and communicating effectively with parents/guardians, business and industry, and other agencies and the community at large to support learning by all students. *Prerequisite: None.*

EDU 213 Philosophical Foundations of Education 3.0 credits. This performance-based course provides an overview of the aims and organization of American education. Special attention is given to the historical, philosophical, political, social and cultural history of the education system in the United States. Course topics include legal and ethical and civil rights issues in education in America. Within our diverse society, the impact of racial, ethnic and

cultural diversity of schools is a crucial area for examination. The connective relationship between the past history in education in American society and the influences on today's schools will be emphasized throughout the course. The use of critical thinking skills, engagement in reflection, and constructivist teaching act as common course structural threads. Online and offline experiences, materials and resources will be used by students to build their knowledge base and promote skill and attitude development. *Prerequisite: None.*

EDU 308 Reading Literacy and Language Develop I 3.0 credits. The performance-based course is designed as a basic course that introduces pre-service teachers to the fundamental processes, philosophies, beliefs, objectives, desired outcomes and professional standards involved in the teaching of reading. The importance of reading in all phases and in all areas of learning serves as an underlying course theme. The course addresses how literacy develops with special emphasis on the influence of the home, school, the community and the wider society. Historical insight into the changing views of literacy will be examined. The impact of history as well as the influence of current research and theories on instructional materials and practice in reading is studied. Particular attention is given to the reading process. Insight into meeting the needs of all children including multicultural children and exceptional children is stressed. A crucial topic is the use of best practices in reading to create developmentally appropriate language learning environments. *Prerequisite: None.*

EDU 309 Reading Literacy and Language Development II 3.0 credits. Reading/language arts instruction in accordance with the Pennsylvania Academic Standards including phonemic, morphemic, semantic, syntactic, and pragmatic systems of language; elements of the writing process including spelling, grammar, punctuation and handwriting; instructional technologies, and information management and library skills. *Prerequisite: EDU 308.*

EDU 317 Children's Literature 3.0 credits. Methods and materials to promote effective language skills of listening, speaking, writing, vocabulary development and reading. Techniques for challenging children and adolescents to read books for enjoyment and for broadening their horizons are evaluated. Critical analysis of children's and adolescents' books and their suitability for different levels of maturity are covered. *Prerequisite: None.*

EDU 320 Pre-Professional Field Experience in Education I 3.0 credits. Provides candidates with exploratory experiences in a setting for young children. *Prerequisite: None.*

EDU 321 Pre-Professional Field Experience in Education II 1.0 credit. Provides candidates with the opportunity to teach individual children in a school setting. Hours: 1. *Prerequisite: EDU 320.*

EDU 401 Educational Technology and Classroom Application 3.0 cr. A required three-credit hour course. Materials, devices, techniques and settings are presented in an overview of the field of instructional technology. Laboratory experiences are provided in the operation of instructional hardware. Educational Technology and Classroom Applications is a course designed to introduce education majors to the underlying principles of instruction and how instruction can be facilitated using technology. Throughout the semester, students will

become acquainted with all aspects of instructional technology. Students will by necessity become proficient with the computer as a teacher's tool as they use the computer for word processing, data base management, spreadsheet development and the use of graphic/presentation software in the development of lesson planning, utilization of communications software (e-mail) and web based instruction. At the completion of the course, students will have familiarity with the tools found in the instructional technology field and be able to integrate those technologies into their lesson plans and instruction. Students will also learn to use a Database to manage information i.e., lists, names and addresses, schedules and inventories, as well as the implementation of graphic/presentation software in instruction. *Prerequisite: None.*

EDU 413 Educational Tests and Measures 3.0 credits. Assessing students' understanding of content, adjusting instruction and providing feedback to students, parents, and other professionals including formal and informal assessments and evaluations; written and oral tests and demonstrations; individual and group projects and exhibitions; interpretation of individual and school-wide student data; and collaborative construction of rubrics. *Prerequisite: None.*

EDU 416 Pre-Professional Experience in Education III 3.0 credits. Provides candidates with an opportunity to teach small groups of children and youth in educational settings. *Prerequisite: EDU 321.*

EDU 428 Student Teaching Elementary Education 12.0 credits. Student teaching provides a full semester of field-based experiences to further develop teaching competencies to plan, implement, and evaluate effective instructional strategies based on Pennsylvania Academic Standards. Support is provided by a university supervisor, a cooperating teacher, and public school/university faculty. Regularly scheduled practicum sessions enable candidates to discuss important educational issues, employ problem-solving skills, reflect upon and analyze teaching and learning experiences, and explore career opportunities. *Prerequisite: EDU 320, EDU 321, EDU 416.*

EDU 440 Classroom Management 3.0 credits. The principles of learning theory and how they apply to the psychosocial variables affecting children's adjustment in the classroom. The theories and methods of applied behavior analysis with emphasis on the procedures for strengthening existing desirable behaviors. *Prerequisite: None.*

EDU 901 Differentiated Instruction 3.0 credits. This course will provide the Educator with the understanding and simple strategies to present both content and methods that accommodate individual difference in the classroom. Participants will be able to 1) Analyze the role of a teacher in a differentiated classroom 2) Articulate and support rationales for a differentiated classroom 3) Reflect on one's own growth in addressing academic diversity in the classroom, and 4) develop a short term goal for implementation in the classroom that addresses the academic needs of a diverse group. *Prerequisite: None. *Note: regular graduate students are not permitted enrollment in this course.*

EDU 902 School Home Connections 3.0 credits. The primary function of this course is to help school staff understand how they can assist parents to better support their children as learners. Strategies include helping classroom practitioners develop learning partnerships with parents by assigning more productive and inclusive homework, explaining classroom work and grading systems, correcting student work and providing timely feedback to students and parents. *Prerequisite: None. *Note: regular graduate students are not permitted enrollment in this course.*

EDU 903 Managing Anti-Social Behavior 3.0 credits. This course is intended to provide educators with instructional tools to change practice and promote student achievement through ongoing professional development. Participants will examine research-based information that is essential to professional practice through the (ATF) ER&D managing Anti-Social behavior Program. This course will offer non-threatening, nonjudgmental learning environment, providing opportunities for thoughtful discussion about teaching and learning with colleagues and researchers; blending theory and practice into meaningful (learning activities) strategies that promote social skill development and academic progress. The anti-social actions of a small but powerful percentage of students in school not only put their own academic success at risk, but also threaten the environment of the rest of the class. This course will present research on students who have emotional and behavioral problems and who are easily provoked. Participants will learn about strategies to reduce and/or prevent the occurrence of disruptive outbreaks. *Prerequisite: None. *Note: regular graduate students are not permitted enrollment in this course.*

EDU 904 Instructional Strategies that Work 3.0 credits. This course provides practical applications of instructional strategies outlined in the research base on effective instruction and proven to support student learning, if implemented systematically and routinely in the classroom. Focal points of this course are cognitive strategies that foster critical thinking and the transferability of acquired skills. Course participants will learn how to evaluate scoring guides for student tasks. These strategies are applicable in K-12 settings and are applicable to students with special needs.

The course content includes a 30-year synthesis of the research consensus on instructional strategies proven to have the greatest effects as well as help students improve their met cognitive skills. *Prerequisite: None. *Note: regular graduate students are not permitted enrollment in this course.*

EDU 905 Foundations of Effective Teaching I 3.0 credits. This course will focus on effective classroom management strategies for teachers in grades K-12. Foundations of Effective Teaching, presents a synthesis of research on the fundamental aspects of teaching and learning. It is aptly named, because as defined by Webster, a foundation is the basis on which a thing stands, or is supported; an underlying support. This research identifies the myriad of specific, core teachers behaviors, often performed unconsciously that support good teaching. It helps teachers become aware of the complexities of teaching, reflect on their own practices, and move their use of effective strategies of the conscious level.

Classroom management is what a teacher does to organize and manage students, space, time and materials at the beginning of the year and throughout the year to create an orderly flow of activities and seemingly automatically functioning classroom. It represents a combination of organizational and management skills, techniques and practices which teaches use to establish a classroom environment in which good instruction and learning can take place, students tend to be disruptive and off-task, and the teacher spends more time trying to control students than teach. *Prerequisite: None. *Note: regular graduate students are not permitted enrollment in this course.*

EDU 906 Building Academic Success 3.0 credits. This course addresses the challenges teachers are facing to raise the performance levels of all students while also closing the achievement gap. Students' learning needs have become increasingly diversified. Therefore, this course explores ways to equalize student status, both cognitively and socially, in order to raise student achievement. Evidence of departmental support was provided. . *Prerequisite: None. *Note: regular graduate students are not permitted enrollment in this course.*

EDU 907 Reading Comprehensive Instruction 3.0 credits. This course focuses on the research and exemplary practices that help students acquire strong reading comprehension skills. It provides participants with a synthesis of the research base on reading comprehension instruction and vocabulary development. Participants examine, discuss and evaluate the appropriate application of a range of instructional strategies from explicit to implicit teaching of comprehension skills. Strategies are presented for increasing student comprehensive of both narrative and expository text-including content area textbooks. In addition, approaches are presented to help students monitor their own comprehension and apply appropriate "fix-up" strategies and examples of student work are embedded in each unit.

This course is appropriate for all K-12 teachers who need to help increase their students' comprehension of text – whether that text is a literature selection or a subject area textbook. . *Prerequisite: None. *Note: regular graduate students are not permitted enrollment in this course.*

EDU 908 Beginning Reading Instruction 3.0 credits. This course focuses on how children learn to read and the best ways to teach beginning reading from kindergarten to the end of second grade. Because the course contains considerable information on how students develop basic decoding skills, it is also useful to teachers and paraprofessionals working with older students who are still having difficulty with decoding and fluency.

The course presents a synthesis of the research consensus for beginning reading instruction. In addition, the most effective strategies for teaching beginning reading are provided with an emphasis on helping students develop phonemic awareness, fluency, vocabulary and comprehension. Throughout the course participants will use a double-entry journal to record both the research content that is presented and the training strategies that presenters use. Opportunities for reflection will be provided at the end of each session by completing a written reflection. By the end of the course, every participant will be expected to share a strategy learned and implemented in his or her classroom. . *Prerequisite: None. *Note: regular graduate students are not permitted enrollment in this course.*

EDU 909 Foundations of Effective Teaching II 3.0 credits. This course will focus on effective classroom management strategies for teachers in grades K-12 Foundations of Effective Teaching, presents a synthesis of research on the fundamental aspects of teaching and learning. It is aptly named, because as defined by Webster, a foundation is the basis on which a thing stands, or is supported; an underlying support. This research identifies the myriad of specific, core teachers behaviors, often performed unconsciously that support good teaching. It helps teacher become aware of the complexities of teaching, reflect on their own practice, and move their use of effective strategies of the conscious level.

Classroom management is what a teacher does to organize and manage students, space, time and materials at the beginning of the year and throughout the year to create an orderly flow of activities and seemingly automatically functioning classroom. It represents a combination of organizational and

ELE 300 Critical Skills in Elementary Math I 3.0 credits. This performance-based course focuses on an interdisciplinary approach to the teaching of mathematics at the elementary and middle school levels. The course emphasizes the foundations of teaching mathematics, mathematical processes and mathematics content of the structure of the real number system, sets, functions and logic; problem-solving, numeration systems, and algebraic concepts. Developmentally appropriate approaches to mathematics instruction using science as a tool are addressed. This first course in a two-component, mathematics curriculum series is required of all elementary education majors. *Prerequisite: None.*

ELE 301 Critical Skills in Elementary Math II 3.0 credits. Critical Skills in Elementary mathematics II is a performance-based course that serves as the second of a two-course component that focuses on the teaching of mathematics in elementary and in middle schools. Critical skills in Elementary Mathematics II takes an interdisciplinary approach to the teaching of mathematics. Knowledge and skills in teaching are emphasized. Favorable dispositions and attitudes towards learning and teaching mathematics are fostered. This second course continues to present contemporary teaching and learning theories in mathematics education. *Prerequisite: None.*

ELE 304 Social Sciences Citizenship Elementary School 3.0 credits. Teaching Social Studies, including Citizenship Education in the Elementary Level is a performance-based course that focuses on content knowledge, skills and resources essential for teaching social studies in grades K-8. The course is designed to enable students to establish a clear understanding of the elements of social studies education as defined by the National Council for the Social studies and the Pennsylvania Academic Standards. Key aspects of the development and implementation of standards-based social studies instruction are examined. *Prerequisite: None.*

ELE 310 Teaching Physical Science in Elementary School 3.0 credits. Teaching Physical Science in the Elementary School has been designed to prepare pre-service and in-service students to become competent, confident and committed teachers of science to elementary children. An emphasis is placed on understanding child development and its relationship to constructing scientific knowledge. Developing and demonstrating an

understanding of subject matter, concepts, principles and themes for studying and teaching physical science in the elementary school are central to the course. The processes of science are explored as they relate to human society. The processes of science and the use of scientific inquiry skills are fostered through the use of instructional strategies that require the observation and application of best teaching practices in authentic settings. The role of active research, investigation, collaboration, authentic assessment and the integration of technology are important course elements. A constructivist approach to teaching and learning is used as a critical course connective link. Ways of managing science instruction and student learning safely and successfully in the elementary school are incorporated in this course. *Prerequisite: None.*

ELE 320 Teaching Biological Science in Elementary School 3.0 credits. This course has been purposely designed to prepare pre-service and in-service students to become competent, confident and committed teachers of science to elementary children. An emphasis is placed on understanding child development and its relationship to constructing scientific knowledge. Developing an understanding of subject matter, concepts, principles and themes for studying and teaching biological sciences in the elementary school are central to this course. *Prerequisite: None.*

ERE 001 Reading Study Skills 3.0 credits. This performance-based course has been designed to help students meet the rigorous academic demands of learning at the college level. In this course, the primary goal of instruction and practice is to develop and effectively improve the skills and abilities that college students need to comprehend reading material, reflect upon and retain content. Techniques and strategies for efficiently enhancing reading and study skills including vocabulary development, listening, note taking, time management, textbook usage and other study skills are addressed. Knowledge of relevant specialized vocabulary and terminology within a variety of disciplines will be explored and acquired. The use of critical thinking skills is emphasized throughout the course as the connective relationship between academic reading and writing are examined. This is a remedial course. Credits are not applicable to the 120 credits required for graduation. *Prerequisite: None.*

ERE 102 Effective Communication Technologies 3.0 credits. This course is offered to deliver Praxis test preparation workshops for education students. Emphasis is placed on reading comprehension and process review and testing strategies, writing process review including sentence correction and essay construction, and mathematics content review and testing strategies from basic math to geometry. *Prerequisite: None.*

FCS 211 Child and Adolescent Development 3.0 credits. A course that introduces candidates who are preparing to become teachers to the study of child development beginning with conception and ending with early adolescence. Within this chronological framework, information on the different domains of development is included. Through appropriate learning experiences, candidates acquire knowledge that will enable them to understand how children learn and how they move through periods of growth with specific developmental tasks that serve as milestones for development. This course also examines important issues related to raising healthy children and building positive parent-child

relationships including how to promote safe and health learning environments. *Prerequisite: None.*

FMM 101 Global Textiles and Apparel Production 3.0 credits This course is an overview of the global fashion industry. An introduction to the international marketplace with an emphasis on textile production from fiber to fabric production and apparel production from concept to wholesale and distribution will be presented. *Prerequisite: None.*

FMM 102 Global Apparel Retailing 3.0 credits. This course is an introduction to the principles of retailing apparel in the global fashion marketplace. In particular, the following principles will be discussed: organization and planning, human resources, buying, marketing and merchandising. *Prerequisite: None. (Global Studies General Education Course)*

FMM 201 Fashion Merchandising I 3.0 credits. This course is an introduction to the principles of retailing apparel in the global fashion marketplace. In particular, the following principles will be discussed: organization and planning, human resources, buying, marketing, and merchandising division of the global apparel industry. In addition to studying merchandise, the student will be introduced to the people, markets, media, policies and procedures that govern the largest division of the fashion industry. *Prerequisite: FMM majors only.*

FMM 202 Fashion Management I 3.0 credits. This course will cover the management side of the fashion industry from the perspectives of major retailers. As well as focusing on profit and loss, the student will explore issues related to consumer relations, law, government, personnel and ethics. *Prerequisite: FMM majors only.*

FMM 203 History of Apparel I 3.0 credits. This course is a survey of the history of cultural apparel from the continents of Africa, South America, Asia, Europe, and North America. *Prerequisite: FMM majors only.*

FMM 204 History of Apparel II 3.0 credits. This course is a survey of the history of modern American adornment and apparel from 1900 to the present. Special emphasis will be placed on the major fashion designers who have influenced the look of contemporary RTW and couture. *Prerequisite: None.*

FMM 205 Visual Merchandising 3.0 credits. This course is an applied class in the theories, concepts, and practices of the visual merchandiser for apparel retailing. Creative assignments, in-class workshops and projects serve as the major forms of instruction. *Prerequisite: None.*

FMM 206 Fashion Marketing 3.0 credits. This course familiarizes the student with the basics of marketing then professes into the specific goals and challenges of the apparel retailer as it relates to marketing fashion goods and services in the global marketplace. *Prerequisite: Majors in Fashion Merchandising and management or Business Administration only.*

FMM 301 Fashion Merchandising II 3.0 credits. This course will cover the menswear and children's wear markets in the global apparel industry. Besides the merchandise, the student will

be introduced to the people, markets, media, policies and procedures that govern these growing divisions of the fashion industry. *Prerequisite: FMM 201 and FMM major*

FMM 302 Fashion Management II 3.0 credits. This course will cover the management side of the fashion industry from the perspective of the small apparel retailer (chains and boutiques). As well as focusing on profit and loss, the student will explore issues related to customer relations, government, law, personnel and ethics. *Prerequisite: FMM 202 and FMM major.*

FMM 303 Specialty Merchandising: Footwear and Accessories 3.0 credits. This course explores the specialty markets of footwear and accessories by examining the retail mix employed by major retailers and small businesses. In addition, students research existing lines and brands, track current fashion trends, and build forecasting skills. *Prerequisite: FMM 201 and FMM major.*

FMM 304 Specialty Merchandising: Home Textiles 3.0 credits. This course is a comprehensive introduction to the home-related textiles market. Students analyze the reasons for the market's continued growth, including socio-economic, cultural, and technological factors that have influenced its expansion. *Prerequisite: FMM 201 and FMM majors.*

FMM 305 Merchandise Buying and Planning 3.0 credits. This course is an in-depth study of the apparel buyer's role in the fashion industry. Students will learning the principles, procedures, resources and calculations needed by apparel buyers to generate profitable business plans season-after-season. *Prerequisite FMM major, FMM 202, BCC 111.*

FMM 306 Professional Development 3.0 credits. This course is an extensive workshop in professional skill-set building and career preparation. Students will engage in in-depth discussions, exercises related to internship and job application, and mock interviewing. *Prerequisite: Juniors and Seniors.*

FMM 307 Fashion Creativity and Big Ideas 3.0 credits. This course is an exercise in the practice of "thinking outside the box". Students are encouraged to brainstorm and freely create "Big Ideas" that may someday be utilized in the fashion world. A semester project will be completed. *Prerequisite: Juniors and Seniors.*

FMM 308 Fashion Merchandising Seminar 3.0 credits. This course is a semester-long focus on one aspect or timely issue related to the fashion industry. *Prerequisite: FMM Level 3 or 4.*

FMM 401 Fashion Research and Theories 3.0 credits. This course is an introduction to the methodologies and theories within fashion research. Students will study and incorporate fashion theories and concepts in an applied research assignment. *Prerequisite: FMM major, RSO 201; RPS 211.*

FMM 402 Fashion Direction and Styling 3.0 credits. This course is an applied workshop in the concepts and techniques utilized by fashion directors and stylists in forecasting fashion trends and servicing private clients. Students will learn how to analyze fashion collections and clothing

lines and determine which styles, silhouettes, and colors are most likely to be accepted by the targeted consumer(s). *Prerequisite: FMM 204; FMM 206, FMM major.*

FMM 403 Apparel Industry Analysis 3.0 credits. This course is a survey of recent trends and news in the fashion industry. Students learn how to investigate and discuss the major shifts and changes in the apparel and textile industries that will have an effect on the industry as well as its consumers.

FMM 404 Apparel Industry Technologies 3.0 credits. This course is an overview of the technological advances, equipment, and software utilized by apparel industry professionals. *Prerequisite: FMM Levels 3 or 4 only.*

FMM 405 Fashion Entrepreneurship 3.0 credits. This course is a detailed assessment of the student's abilities to run an apparel-related business or department. Students will have two assignments: (a) create a mock business plan and (b) engage in a simulation of business activity. *Prerequisite: FMM Level 3 or 4.*

FMM 406 Apparel Industry Internship 3.0 credits. This course is an applied test of the student's ability to function in a "real world" business environment. Students participate in off-campus internship with apparel-related companies. Bi-weekly reports and monthly examinations determine the student's level of professionalism and preparedness. *Prerequisite: FMM 306, FMM Levels 3 and 4 only.*

FMM 407 Individual Supervised Project 3.0 credits. This course is an individual exercise in the completion of a semester-long project. After instructor approval of the student's project and objectives, the student finishes the project from beginning-to-end under the supervision of the instruction. *Prerequisite: FMM Level 4 and permission of instructor.*

FMM 500 Apparel Industry Study Tour 3.0 credits. This course is an off-campus tour of the global apparel industry. Students have the opportunity to travel to a domestic or international location to study the fashion industry within its various environments. Students also have the opportunity to meet fashion merchandisers, apparel retail managers, fashion designers, and apparel industry leaders. *Prerequisite: FMM major or by permission of the FMM program coordinator.*

GAC 101 Freshman Seminar 1.0 credit. In this course you will learn what defines a "master student" and the skills necessary to become one. Becoming a "master student" will enable you to succeed at Cheyney University and in the world at large. At the end of this process you will have increased your self-awareness, critical thinking skills and communication ability. You will also possess a greater knowledge of various study skills and techniques. Lastly, you should have a defined career goal and course of study. *Prerequisite: None.*

GAC 102 Freshman Seminar II 1.0 credit. In this course you will learn what defines a "master student" and the skills necessary to become one. Becoming a "master student" will enable you to succeed at Cheyney University and in the world at large. At the end of this

process you will have increased your self-awareness, critical thinking skills and communication ability. You will also possess a greater knowledge of various study skills and techniques. Lastly, you should have a defined career goal and course of study. *Prerequisite: None.*

GRD 100 Basic Design 3.0 credits. This course will examine the materials and processes of 2D design in conjunction with the principles which influence form and function. Design is explored in hands on applications using variety of media including traditional materials and the computer. Basic design is a foundational course for all areas in art and design and presents the fundamental building blocks of 2D composition and design. *Prerequisite: None.* **(Humanities General Education Course).**

GRD 110 Internet Literacy 3.0 credits. This course is an introduction to the key components, definitions, common applications, and information resources of the internet. It teaches the skills of accessing and navigating through information. All the basic requirements for understanding and utilizing the internet business, education, and entertainment are covered, and an overview of the basics of building simple web sites is presented. *Prerequisite: None.* **(Humanities General Education Course).**

GRD 205 Digital Image Manipulation 3.0 credits. This course evaluates photographic image digitizing and manipulation of software and hardware. It introduces the potential of the computer as a tool in the photographic process. Students will learn the techniques of retouching and manipulating photographic images. *Prerequisite: None.* **(Humanities General Education Course).**

GRD 301 Fundamentals of Animation 3.0 credits. This course covers the history and evolution of animation, as well as the theory and principles behind it. The basic skills of cell animation will be explored through the mechanics of pencil roughs, cell composition, ink and paint. Students will practice timing, rhythm and movement while exploring their design implications. Digital technology and basic computer animation software will be introduced through demonstration and practice. Graphic designers in today's industry are required to know animation for web application, gaming applications, advertising and other projects they will be required to create by their employers. This course gives students the background they need to create animations and be more attractive to their prospective employers. *Prerequisite: None.*

GRD 310 Concept Development 3.0 credits. In this course, students are introduced to media production by identifying the components of good production design, emphasizing the importance of problem solving, planning and design functionality. The process of creative team dynamics is explored along with its principles and practices. Production planning, software, word processors and desktop publishing software will be used to develop a pre-production file. The purpose of the course is to give students a deeper exploration of production planning, desktop publishing, media production, including an overview of design elements. *Prerequisite: None.*

GRD 312 History of Graphic Design 3.0 credits. In this course, students are introduced to the artistic trends and developing technologies that have influenced creative work throughout the 19th, 20th, and 21st century Europe and America. The course focuses on the relationship

between design and art, the artist role and influence on Western Culture and Society. The course reveals a saga of creative innovators, breakthrough technologies and important design innovations. *Prerequisite: None.*

GRD 314 Computer Graphics I 3.0 credits. This course covers the fundamental concepts for creating a multimedia web page. The course guides the student through the fundamental principles of design, drawing, industry designed software and their application in practice. Students are given intensive grounding in the design experience from which they will be able to make informed choices about further education and employment. *Prerequisite: None.*

GRD 315 Computer Graphics II 3.0 credits. This course examines the theory, technology, and preparation needed for a publication layout, print separation, print production, and a print bureau file. The focus will include a typographical design, design layout, scanning and importing files, file choice, and color. Logos and other symbolic images will be examined in historic and contemporary context. The course guides the student through the fundamental principles of design, drawing, industry designed software and their application in practice. Students are given intensive grounding in the design experience from which they will be able to make informed choices about further education and employment. *Prerequisite: None.*

GRD 322 Desktop Publishing 3.0 credits. This course introduces the student to the theory and operation of electronic publishing technology, emphasizing the integration of software programs such as page layout, word processing and graphics. *Prerequisite: None.*

GRD 330 Introduction to Website Design 3.0 credits. This course will develop the scripting skills necessary for web page design and introduce students to the basics of HTML. Students will work with various web design software such as FrontPage and Dreamweaver. Designing for the web is a crucial skill needed by graphic designers today. *Prerequisite: None.*

GRD 360 Motion Graphics 3.0 credits. This course focuses on the use of advanced graphic display techniques in multi-media enhanced web design, including animation. All designers working in today's market need to understand moving images for applications in multimedia products such as games and web pages. *Prerequisites: None.*

GRD 400 Senior Capstone Project 3.0 credits. In this course, students design, develop, and implement a long-term project that demonstrates an in-depth understanding, both conceptually and technically, of an aspect of multimedia communications. Students meet on a regular basis with an advisor, and produce a digital and physical portfolio as part of their final presentation. Final presentations will culminate with a senior show production showcasing the students' creative efforts. *Prerequisite: None.*

GRD 401 Human computer Interface Design 3.0 credits. This course is about the impact of interface design and interaction between people and computers. It is often regarded as the intersection of computer science, behavioral sciences, design and other fields of study. Interaction between users and computers occurs at the user interface, which includes both hardware and software. Students will look at the current technologies that will make existing hardware and software obsolete, design new ideas that will allow more user friendly interactions with computers, and design specific interfaces that target particular audiences. *Prerequisite: None.*

GRD 410 Internship 3.0 credits. In this course, students will locate internship opportunities and obtain placement just as they would find any professional career opportunity. The internship consists of 120 hours in a professional graphic design environment. *Prerequisite: None.*

GRD 420 Advanced Website Design 3.0 credits. This course develops student skills in website design at an advanced level. With this knowledge, students will be able to design, set up, and maintain websites at the corporate or institute level. *Prerequisite: None.*

HAR 111 Elements of Art 3.0 credits. A rudimentary investigation of color, form, space, and history in fine arts. Creative art is introduced through experiences with color and design in two and three-dimensional forms. An introductory survey of the history of art. *Prerequisite: None.*
(Humanities and Writing Intensive General Education Course)

HAR 200 Art History I 3.0 credits. Surveys major contributions from the Italian Renaissance to contemporary European, and North American arts. Special emphasis is placed on African American artists. *Prerequisite: HAR 111.* **(Humanities and Global Studies General Education Course)**

HAR 201 Art History II 3.0 credits. Students will learn the contributions of the major art periods from the Renaissance to the present. This course considers art history from the Western perspective, charting the development of art in Europe, with some focus on Asia, and Australia. Students will gain appreciation and insight of art, artists, and history as viewed by the artists who created lasting works of art, documenting historical events, social injustice, technological advances, the disparity of war and many others. We will review the context in which the art was created as well as the art itself, with opportunities for fieldwork and art making within and without the classroom. Students are encouraged to visit local museums as part of their coursework. *Prerequisite: None.* **(Humanities and Global Studies General Education Course)**

HAR 202 African Art 3.0 credits. A study of traditional and contemporary African art in two and three-dimensional media. The influence of African art on Western art. *Prerequisite: HAR 111.* **(Humanities General Education Course).**

HAR 205 Egyptian Art 3.0 credits. This course gives the student the opportunity to explore the art of Ancient Egypt and Ancient Nubia in a more detailed fashion than is possible in an African Art class. This course will survey Egyptian Art dating from pre-Nile cultures through Dynastic Egypt. The Roman Empire, the Christian and Islamic periods, and to contemporary Egyptian artists. Special attention will be given to Nubian and Kushitic cultures and their accomplishments in the ancient world. *Prerequisite: None.* **(Humanities General Education Course).**

HAR 211 Ceramics I 3.0 credits. An introduction to basic hand forging techniques of pottery making and ceramic sculpture. *Prerequisite: HAR 111.* **(Humanities General Education Course).**

HAR 212 Ceramics II 3.0 credits. Students explore wheel throwing, mold making, and other forms. *Prerequisite: HAR 211.* **(Humanities General Education Course).**

HAR 220 Fundamentals of Drawing I 3.0 credits. This is a course in basic concepts and principles of drawing, and emphasizes accurate representation. It is open to beginners as well as students with some previous formal instruction in drawing. Individual instruction and individual critique will be given as well as class lectures and demonstrations. Topics include: drawing materials, composition, perspective, proportion, tone space, and volume and modeling.

Drawing assignments include still life setups, cast drawing and landscape. *Prerequisite: None.* **(Humanities General Education Course).**

HAR 221 Fundamentals of Drawing II 3.0 credits. This course is a continuation of principles and concepts begun in Fundamentals of Drawing I with additional problems in human figure, abstract, and non-representational drawing. *Prerequisite: HAR 220 or equivalent.* **(Humanities General Education Course).**

HAR 300 Figure Drawing I 3.0 credits. Drawing the human figure, dealing with action, proportion, and anatomy. *Prerequisite: HAR 220.*

HAR 302 Printmaking I 3.0 credits. The art of visual expression with etching, lithography, the wood cut and linoleum block. *Prerequisite: HAR 220.*

HAR 304 Watercolor I 3.0 credits. Watercolor sketching and painting dealing with still life and landscape composition. *Prerequisite: None.*

HAR 305 Watercolor II 3.0 credits. A continuation of HAR 304, with figure compositions as an additional challenge. *Prerequisite: HAR 220, HAR 304.*

HAR 306 Oil Painting I 3.0 credits. This is a beginning level course in techniques of oil painting, designed for students, *Prerequisite: Permission of Instructor.*

HAR 307 Oil Painting II 3.0 credits. This is a continuation of techniques and problems in oil painting begun in HAR 306. Topics include developing the entire canvas, building an integrated statement, accurate depiction of subject; space, volume, value and color; thinking creatively in abstract, non-representational and figurative approaches, painting as exploration or process of transforming ideas and concepts into visual expression. *Prerequisite: HAR 306 or equivalent.*

HAR 308 Sculpture I 3.0 credits. This course is an introduction to basic concepts and principles of sculpture and a survey of the scope of sculptural disciplines. Topics include: principles of 3-D design, knowledge of tools and techniques; materials and processes. Project assignments will be carried out on such materials as wax, clay, plaster, wood, stone, and other materials. *Prerequisite: None.*

HAR 309 Sculpture II 3.0 credits. This course is a further exploration of concepts and processes begun in HAR 308 – Sculpture I, and additional techniques and processes, such as mold-making and casting, fabrication and assemblage. Assignments in various materials. *Prerequisite: HAR 308 or equivalent.*

HAR 310 Art for Classroom 3.0 credits. Two and three-dimensional expression; creative and mental growth in the child. Teaching, evaluation, and lesson planning motivation, and evaluation for young people's art. *Prerequisite: HAR 111,*

HAR 312 Modern Art 3.0 credits. The major western modern art movements from impressionism to contemporary developments. *Prerequisite: None.*

HAR 313 African Art 3.0 credits. This course serves as an introduction to the historical and social forces that shaped the works of American artist of African ancestry from the Colonial period to the present. The course will examine the roots, main currents, forms, styles, content, aesthetics, and ideological dimensions of African-American art, as well as the extent to which

the latter has captured the spirit of the black experience. *Prerequisite: None. (African American Heritage General Education Course).*

HAR 320 Commercial Graphic Design I 3.0 credits. An introduction to hand lettering, the use of rub-on-letters, layout design, and illustration for commercial uses. *Prerequisite: HAR 220 or permission of instructor.*

HAR 325 Introduction to Art Therapy 3.0 credits. An introduction to the therapeutic use of art as an aid to recovery and rehabilitation from mental disorders. *Prerequisite: HAR 111, HAR 220, and either HAR305 or HAR 306, and either HAR308 or permission of instructor.*

HAR 330 Art for the Classroom 3.0 credits. Two and three dimensional expression, creative and mental growth in the child. Teaching, evaluation, and lesson planning motivation, and evaluation for young people's art. *Prerequisite: HAR 111, HAR311.*

HAR 331 Arts of Western Africa 3.0 credits. Course will be an in depth investigation into the Arts of Western Africa. The traditional arts of tribes such as the Dagon, the Ashanti, the Yoruba, the Fon, the Mande, the Senufo and others will be examined. We will compare and contrast West African religions, cosmology and world view as they are expressed through sculpture, textiles, masks, masquerades, metalwork, other visual arts and performing arts. *Prerequisite: None.*

HAR 415 Portraiture 3.0 credits. Study of a wide variety of types of life, using a variety of media. *Prerequisite: HAR 111, HAR 220.*

HAR 416 Advanced Portraiture 3.0 credits. Portraits will be painted with special attention given to composition. *Prerequisite: HAR 220, HAR 415.*

HAR 430 Field Experience – Art III 3.0 credits. may earn credit designing and producing art works in the service of the community working with professional artists, working on-the-job situations with the following format: Total 90 class hours. *Prerequisite: None.*

HCA 111 Mass Communication in America 3.0 credits. This course is designed to give students a look at the entire spectrum of the mass communications industry and its supporting elements. It will help students to make intelligent decisions about which, if any, area of communications they may wish to work in following graduation. *Prerequisite: HEN 112. (Humanities General Education Course).*

HCA 113 Writing for Print Media 3.0 credits. This course is designed to help students begin to develop their skills in reporting and writing the news. The basic skills are not only demanded by the newspaper industry, but also in radio, television, advertising and public relations. *Prerequisite: HEN 112. (Humanities General Education Course).*

HCA 116 Fundamentals of Public Relations 3.0 credits. A survey of the public relations industry, emphasizing communication with employees, consumers, and stockholders, as well as relations with the media. *Prerequisite: HCA 111.*

HCA 124 Fundamentals of Radio Production I 3.0 credits. Emphasis will be placed on learning the production process as it applies to radio production in a studio environment. This course will focus on developing familiarity and professionalism with radio production equipment. The course will also consist of "hands-on" demonstrations of studio equipment and operation

techniques. Students will be required to create and develop basic programming that displays their production skills. Students will also be required to complete assigned projects by scheduling or reserving studio times (outside of the regular class schedule). *Prerequisite: HEN 112, HCA 111.* **(Humanities General Education Course).**

HCA 125 History of Film 3.0 credits. This course familiarizes students with the genesis and evolution of films. Students also learn basic filmmaking terminology/vocabulary and use such terms to analyze the films viewed. Students study camera angle, shot composition, acting, directing, *mis en scene*, and other film elements to understand film as a genre. *Prerequisite: HEN 113.* **(Humanities General Education Course).**

HCA 126 Public Reltns Mngt 3.0 credits. Emphasizes designing public relations plans and developing written communication with employees, consumers, stockholders, and the media. *Prerequisite: HCA 116.*

HCA 134 Fundamentals of TV Production 3.0 credits. Emphasis will be placed on learning the production process as it applies to television production in a studio environment. This course will focus on developing familiarity with television studio equipment and professionalism. The course will also consist of "hands-on" demonstrations of studio equipment and operation techniques, including directing, technical directing, camera and audio operation, and productions. Students will be required to create and develop programming that displays their production skills. Students will also be required to complete assigned projects by scheduling or reserving studio time (outside of the regular class schedule). *Prerequisite: HEN 112.* **(Humanities General Education Course).**

HCA 201 Print Workshop I 1.0 credit. Experience in news gathering reporting and producing the university newspaper. Students may re-enroll until graduation. *Prerequisite: HEN 112.* **(Humanities General Education Course).**

HCA 202 Print Workshop II 1.0 credit. Experience in news gathering, reporting and producing the university newspaper. Students may re-enroll until graduation. *Prerequisite: HCA 113.* **(Humanities General Education Course).**

HCA 203 Print Workshop III 1.0 credit. Experience in news gathering, reporting and producing the university paper. Students may re-enroll until graduation. *Prerequisite: HCA 113.* **(Humanities General Education Course).**

HCA 204 Print Workshop IV 1.0 credit. Experience in news gathering, reporting and producing the university paper. Students may re-enroll until graduation. *Prerequisite: HCA 113.* **(Humanities General Education Course).**

HCA 205 Print Workshop V 1.0 credit. Experience in news gathering, reporting and producing the university paper. Students may re-enroll until graduation. *Prerequisite: HCA 113.* **(Humanities General Education Course).**

HCA 206 Print Workshop VI 1.0 credit. Experience in news gathering, reporting and producing the university paper. Students may re-enroll until graduation. *Prerequisite: HCA 113.* **(Humanities General Education Course).**

HCA 207 Print Workshop VII 1.0 credit. Experience in news gathering, reporting and producing the university paper. Students may re-enroll until graduation. *Prerequisite: HCA 113. (Humanities General Education Course).*

HCA 211 Mass Media Aesthetics Criticism 3.0 credits. The study of terminology and techniques of film as an art form. *Prerequisite: HEN 113. (Humanities General Education Course).*

HCA 212 Mass Communication Law and Ethics 3.0 credits. Communication Law and Ethics focuses both on laws related to mass communication and on the ethical and moral responsibilities of communication systems and of professional communicators. Students view film clips and read case studies. *Prerequisite: HEN 113. (Humanities General Education Course).*

HCA 216 Fundamentals of Public Relations 3.0 credits. A survey of the public relations industry, emphasizing, communication with employees, consumers, and stockholders, as well as relations with the media. *Prerequisite: HCA 111, HEN 113. (Humanities General Education Course).*

HCA 220 Copy Editing 3.0 credits. This course discusses fitting the story to the style and format of a newspaper or magazine. Editing for accuracy, grammar, punctuation, and style are also covered. *Prerequisite: HEN 113. (Humanities General Education Course).*

HCA 222 Broadcast News Reporting 3.0 credits. Students are introduced to and they practice the common characteristics of good broadcast news writing style and delivery. Students are encouraged to be reflective decision makers. *Prerequisite: HEN 113, HCA 111. (Humanities General Education Course).*

HCA 226 Fundamentals of Radio and TV 3.0 credits. Study of production techniques used in both radio and television stations. Includes station visits. *Prerequisite: HCA 111.*

HCA 227 Fundamentals of Radio Production II 3.0 credits. Featuring post production editing with professional quality results and operations in a radio station environment. *Prerequisite: HEN 112. (Humanities General Education Course).*

HCA 302 Radio Workshop II 1.0 credit. Experience in news-gathering, reporting and producing radio news and information. Students should re-enroll for additional credit until graduation. *Prerequisite: HCA 121.*

HCA 303 Video Workshop III 1.0 credit. Hands on experience in gathering, reporting, and producing video news and information. Students should re-enroll for additional credit until graduation. *Prerequisite: HCA 113.*

HCA 312 Writing the Feature Story 3.0 credits. Writing the human interest story for newspapers and magazines. *Prerequisite: HEN 113, HCA 113.*

HCA 315 Public Relations Management 3.0 credits. This course emphasizes designing public relations plans and developing written communication with employees, consumers, stockholders and the media. *Prerequisite: 216.*

HCA 316 Radio Workshop III 1.0 credit. Experiences in news-gathering, reporting and producing radio news and information. *Prerequisite: HCA 302.*

HCA 317 Radio Workshop IV 1.0 credit. Advanced Radio Journalism-experience in news-gathering, reporting and producing radio news and information. *Prerequisite: HCA 316.*

HCA 318 Radio Workshop V 1.0 credit. Experience in news-gathering, reporting and producing radio news and information. *Prerequisite: HCA 317.*

HCA 319 Radio Workshop VI 1.0 credit. Advanced Radio Journalism – experience in news-gathering, reporting and producing radio news and information. *Prerequisite: HCA 318.*

HCA 320 Radio Workshop VII 1.0 credits. Experience in news-gathering, reporting and producing radio news and information. *Prerequisite: HCA 319.*

HCA 324 Small Format Video Production 3.0 credits. Students learn field production skills and creative problem solving techniques in remote ENG/EFP productions. Emphasis is placed on in-camera editing to facilitate post-production. *Prerequisite: HCA 111.*

HCA 326 Video Workshop III 1.0 credit. Hands on experience in gathering, reporting, and producing video news and information. *Prerequisite: HCA 111.*

HCA 327 Video Workshop IV 1.0 credit. Hands on experience in gathering, reporting, and producing video news and information. *Prerequisite: HCA 326.*

HCA 328 Video Workshop V 1.0 credit. Advanced Video Journalism – hands on experience in gathering, reporting and producing video news and information. *Prerequisite: HCA 327.*

HCA 329 Video Workshop VI 1.0 credit. Advanced Video Journalism – hands on experience in gathering, reporting and producing video news and information. *Prerequisite: HCA 328.*

HCA 330 Video Workshop VII 1.0 credit. Advanced Video Journalism – hands on experience in gathering, reporting and producing video news and information. *Prerequisite: HCA 329.*

HCA 331 Non-Linear Video Editing 3.0 credits. This course will focus on planning, organizing, coordinating, scripting, ENG and film-style shooting, continuity, non-linear editing features and techniques. Emphasis will be placed on learning the production process as it applies to editing and post-production. Chapters from the television production handbook that will be highlighted are as follows: working the camera, lighting in the field, postproduction editing, producing, single camera directing, post-production, EN and EFP. The course will consist of hands-on demonstrations in remote locations and editing productions. Students will be required to create a video production that displays editing skills. Students will also be required to complete assigned projects by scheduling or reserving equipment and editing times (outside of the regular class schedule). *Prerequisite: HCA 111.*

HCA 335 Advanced Radio Production 3.0 credits. This course is a continuation of production, performance and programming skills, emphasizing long format programming. *Prerequisite: HCA 227.*

HCA 340 Technical Writing I 3.0 credits. Creation of a variety of workplace documents that help a specific audience accomplish a task, solve a problem or understand a subject. *Prerequisite: HEN 113.*

HCA 413 Issues and Topics in Broadcasting 3.0 credits. A survey of specific theories of communication and their applications in print, broadcast, film and everyday life. Students will demonstrate their ability to apply theoretical concepts to real world examples in the media and their lives. They will do so in class discussions, on tests, in their journals and in their responses to research assignments. This course encourages students to make connections between ideas in the text and everyday example of communication in the media and their lives. *Prerequisite:* HEN113.

HCA 423 Issues and Topics in Advertising Publications 3.0 credits. This course is an in-depth look at the overlapping of advertising and public relations activities as they apply to the support of the marketing efforts of organizations around the world. *Prerequisite:* HCA 216.

HCA 424 Writing and Producing the Documentary 3.0 credits. Techniques of script writing, filming, editing and marketing documentary films are covered in this course. *Prerequisite:* HCA 324, HCA 331.

HCA 434 Multi-Track Audio Recording 3.0 credits. This course is a continuation of BCA 335, focusing on the advanced skills required for music recording in a sound studio environment. *Prerequisite:* HCA 335.

HCA 440 Technical Writing II 3.0 credits. A continuation of HCA 340, this course focuses on designing lengthier documents, creating websites, and making oral presentations. *Prerequisite:* HCA 340.

HCA 450 Issues in the News 3.0 credits. A senior capstone course. Students complete guided research to gain a solid grounding in areas that perennially make news: education, national and international affairs, economics, ecology, urban problems, science and technology, health and religion. Students gain experience in news fathering and news writing. Students will gain the background for understanding current events and share that information by broadcasting on Cheyney radio. *Prerequisite:* Completion of a minimum of 89 credits.

HCA 460 Communications Internship I 3.0 credits. Students are encouraged to sign up for one or two 3-credit supervised internship experiences. Arrangements are made through Career Counseling and the departmental adviser. *Prerequisite:* Completion of 90 or more credits and a cumulative GPA of 2.75 or higher.

HCA 461 Communications Internship II 3.0 credits. Communication Internship II. *Prerequisite:* Completion of 90 or more credits and a cumulative GPA of 2.75 or higher.

HEN 011 Elements of Writing 3.0 credits. Students review basic grammar concepts in the context of college-level writing. This writing will include thesis development, paragraph organization, coherent and cohesive practices in essay construction, and analyzing various types of writing situations by focusing on their audience and purpose. Credits are not transferable and are not applicable toward the 120 credits required for graduation. *Prerequisite:* None.

HEN 112 Freshman English I 3.0 credits. An introduction to college-level formats and research-based writing including thesis development, organizational strategies, and structure of arguments focused on purpose and audience. Students will learn to research topics and integrate research into their essays, using appropriate documentation and citations. Students will

organize a portfolio of their writing that reflects writing practices they have learned with a minimum grade of "C" or placement by examination. *Prerequisite: None.*

HEN 113 English II 3.0 credits. An introduction to reading and writing about literature and learning how to write a research paper. Students will become acquainted with the fundamentals of the research paper format and style, note-taking, library skills, and techniques for writing a research paper. *Prerequisite: HEN 112.*

HEN 113HON English II 3.0 credits. Honors English II meets the objectives of HEN 113 and also introduces students to complex primary texts that influence contemporary perspectives. Students will develop critical reading, writing, and thinking skills, with an emphasis on written discourse, by writing analytical responses to these texts and using them as frames for academic inquiry. This course invites students to be active, critical readers, to read with purpose, and to use writing as a way to solve problems and to re-envision the world through the lens of writers who have helped to shape modern thought. *Prerequisite: HEN 112; enrolled in the Keystone Honors Program.*

HEN 114 Speech 3.0 credits. Speech is a theoretical and practical approach to the principles of effective oral communication, with emphasis placed on delivery, enunciation, critical listening, audience analysis, on research with diverse sources and technologies, and on the organization of several types of speaking situations. The course includes instructor and group analysis of each student's ability to formulate a hypothesis and analyze pertinent information for presentation to specific audiences. *Prerequisite: HEN 112.*

HEN 211 World Literature I 3.0 credits. World Literature I is a survey of multicultural literature from ancient times to the European Renaissance. Each semester selections are made from ancient Egyptian poetry, the Bible, Classical Greek literature, poetry in early China, an epic from India's Heroic Age, early Islamic literature and the beginnings of Western literature. The course gives the student a more inclusive world view through a comparative study of the themes of world literature. The course includes an original research project. *Prerequisite: HEN 113, or HEN 112 and permission of instructor. (Humanities General Education Course).*

HEN 212 World Literature II 3.0 credits. World Literature II is a comparative survey of literature from the European Renaissance to the modern age. The multicultural writers come from Europe, Africa and Asia, examine a variety of subjects and have diverse concerns. Each writer was selected because each has in some way brought to the world a new perspective of "a new lens". Each literary work will be read to locate important ideas and to find the significant center of the work within its own cultural context. The course includes an original research project. *Prerequisite: HEN 113, or HEN 112 and permission of instructor. (Humanities General Education Course).*

HEN 313 English Literature I 3.0 credits. Students will gain knowledge and understanding of key literary movements, concepts, and works in British literature from the Middle Ages, the Early Modern Period, and the Restoration and the Eighteenth century by reading poems, letters, essays, and novels. Students will undertake heavy reading and writing-intensive activities which will help them learn critical reading strategies and reading comprehension so that they can appreciate British literary art. Students will also write two research-based papers that closely examine particular works, characters, devices, themes and contexts. *Prerequisite: HEN 113.*

HEN 314 English Literature II 3.0 credits. Students will gain knowledge and understanding of key literary concepts, works, and movements in British literature from the Romantic, Victorian,

and Modern periods by reading poems, essays, short stories, and novels. Students will undertake heavy reading and writing-intensive activities which will help them learn critical reading strategies and reading comprehension so that they can appreciate British literary art and its contribution to American literature and art. Students will also write two research-based papers that closely examine particular works, characters, devices, themes, and contexts. *Prerequisite: HEN 113.*

HEN 315 American Literature I 3.0 credits. This course is a survey of American literature from colonialism to the Civil War. Specifically, this course employs literary elements (such as theme, symbolism, and imagery), literary criticism, and contextual information to better understand both the literature written during this period and the American character. *Prerequisite: HEN 113.*

HEN 316 American Literature II 3.0 credits. This course is a survey of American literature from the Civil War to the present. This course is a survey of American literature from the Civil War to the present. Specifically, this course employs literary elements (such as theme, symbolism, and imagery), literary criticism, and contextual information to better understand both the literature written during this time period and the American character. *Prerequisite: HEN 113.*

HEN 319 Advanced Composition 3.0 credits. An investigation of rhetorical argumentation in the academic disciplines and the professional world. Students will write analytical responses to social, cultural, and political readings and will write papers supporting arguments in their own disciplines using MLA or APA style. The final project and paper will be an investigation of the writing culture in their own majors using primary and secondary sources. *Prerequisite: HEN 113. (Writing Intensive General Education).*

HEN 321 Shakespeare 3.0 credits. Study of selected poems and plays of William Shakespeare. Attention will be given to the social and historical context of the works, to the Shakespearean theatre, and to interpretations of Shakespeare on film. *Prerequisite: HEN 113.*

HEN 326 Advanced Speech 3.0 credits. Builds on the basic speech course to develop proficiency in public and professional communication. Students will analyze arguments in public speeches and debates and will prepare and present arguments in public speeches and debates and will prepare and present arguments grounded in reasoning and information. This course includes effective delivery for radio and television, and group presentations using multimedia. *Prerequisite: HEN 114.*

HEN 350 Women in Literature 3.0 credits. This course exposes students to the works and impact of important women authors. Students will read and analyze themes, tropes, symbols, genres, characters, and literary criticism as they engage with literature written by and often for women. *Prerequisite: HEN 113.*

HEN 415 Introduction to Linguistics 3.0 credits. Modern English Grammar. An introduction to the scientific and social study of language systems. Topics include morphology (word structure), syntax (sentence structure), semantics (the meanings of words and expressions), and pragmatics (language use). Additional topics may include the biological bases of human language, language acquisition, dialects, cultural and political aspects of language, and language change. *Prerequisite: HEN 113.*

HEN 417 Modern Poetry 3.0 credits. Explores structure, tropes, symbols, and themes of English and American poetry in the 20th century. Students will situate modern and contemporary poetry within social, political, psychological, and historical changes in the 20th century by

reading and responding to primary sources and will demonstrate understanding of modern and contemporary aesthetics through classroom presentations and research-based papers.

Prerequisite: HEN 113. (Writing Intensive General Education Course).

HEN 419 Modern Fiction 3.0 credits. This course is a study of contemporary American fiction through analysis of the fictional strategies selected by each author. The class will focus on writers whose work reflects America of the new millennium from the invaders of cyberspace to those crossing even newer frontiers. *Prerequisite: HEN 113.*

HEN 420 Literary Criticism 3.0 credits. This course is designed for English and Communication majors and is necessary for those who wish to peruse further literary study as post-graduates or professionals. Through intensive reading, presenting, and writing, students will learn how to analyze literature using several contemporary theories. These theories are commonplace and expected tools of analysis among literary scholars. Students will gain fundamental understanding of contemporary literary movements and theories as well as an understanding how these theories relate, merge and complement one another. In short, students will learn how to understand and use literary theory and will learn how to write literary criticism. *Prerequisite: HEN112, HEN 113, one 300 or 400 level literature course.*

HEN 421 Creative Writing 3.0 credits. This course explores the myriad choices and devices employed by writers in the creation of their works. Critical readings are used to promote a greater appreciation of the arts in general and literature in particular. Students are asked to write a series of poems, stories, and plays in order to experience the processes they study. Workshops and peer reviews of student work will be conducted throughout the course to provide students with critical feedback on their writing and to emphasize revision. *Prerequisite: HEN 113.*

HEN 422 Chaucer 3.0 credits. Students will read *The Canterbury Tales* and some selected poems from Geoffrey Chaucer in contemporary English and will be introduced to Middle English as well. In addition students will learn about political, social, and cultural contexts during Chaucer's time. Students will be required to read some Middle English within a presentation and will write two literary analysis papers. *Prerequisite: HEN 113 and one literature course.*

HEN 424 History of English 3.0 credits. History of the English Language is an introduction to the major periods in the history of English. Each period is placed in a socio-historical context with the important linguistic changes in each period noted. For each period, the student will analyze literary texts and will recognize that English is a changing language. The course challenges the student to do high level research and oral reporting both on the history of English and on sociolinguistic processes. *Prerequisite: HEN 113.*

HEN 426 Major 20th Century Authors 3.0 credits. Major twentieth century authors and their writings, unique in its themes, its tone, and literary forms, display a sharp break from earlier or Nineteenth-century fiction writers. This course is an intensive reading, writing, thinking experience designed to analyze the work and explore the themes of major writers of the twentieth century, thereby improving our own abilities to read closely and thoroughly, write and think. Course objectives are to expand our knowledge and appreciation of the style and structure of literary works, and to examine their didactic, aesthetic and entertainment values in terms of the cultural relativity of world literature. *Prerequisite: HEN 113.*

HEN 428 Modern English Grammar 3.0 credits. Study of history and limitations of traditional and structural grammar and an examination of transformational generative grammar. Emphasis on the application of techniques to the teaching of English. *Prerequisite: HEN 113.*

HEN 429 Short Story 3.0 credits. Students will read a wide range of short stories and novellas from different periods and cultures. Students will examine how each story is structured, but will also look at the story's cultural context; when it was written, where it was written, and surmise why it was written. *Prerequisite: HEN 113.*

HEN 430 African-American Literature I 3.0 credits. This course covers the social context of African literary development from ancient times to the American Civil War. Students are introduced to the cultural patterns and historical experiences that produced early autobiographies, narratives, poetry, and essays. *Prerequisite: HEN 113.*

HEN 431 African American Literature II 3.0 credits. This course covers the social context of African American literary development from the American Civil War to the present. Students are introduced to the cultural patterns and historical experiences that produced autobiographies, narratives, poetry and essays as well as twentieth century novels, plays and poetry. *Prerequisite: HEN 113.*

HEN 432 Senior Seminar 3.0 credits. Review and practice in the fundamentals of written English, in literary history and in critical reading and writing. *Prerequisite: None.*

HEN 439 Techniques and Methods Discussion 3.0 credits. The principles, techniques, and methods of different forms of oral discourse, formal and informal group discussion, interview debate, seminar symposium, panel, etc. *Prerequisite: None.*

HEN 462 Internship II 3.0 credits. This course is offered to students who are academically talented in writing and communication. In the course, advanced students are trained to act as peer tutors to incoming freshmen and assist them with composition skills and other areas leading to successful scholarship. Students can take the course three consecutive semesters for credit and experience and then qualify to work as Writing Fellows in the Academic Success Center. This course may be repeated for credit. *Prerequisite: 90 credits and cumulative GPA of 2.5 or higher.*

HLF 101 French I 3.0 credits. French I introduce students to the basic elements of the French language, focusing on the development of communicative skills. It also includes an overview of the cultures of the countries in which the language is spoken. All four language skills, listening, speaking, reading, and writing will be employed in an interactive manner to enable students to express themselves in French. *Prerequisite: None. (Foreign Language General Education Course).*

HLF 102 Elementary French II 3.0 credits. French II is a continuation of French I, and will build on the students' knowledge of basic elements of the language. All four language skills, listening, speaking, reading, and writing will be employed to enable students to express themselves. More elements of the cultures of the countries in which the language is spoken, particularly those outside of Europe, will be introduced as an integral part of the course, and current events will be discussed. *Prerequisite: HLF 101 or placement exam. (Foreign Language General Education Course).*

HLF 201 Intermediate French III 3.0 credits. French III is designed to take students beyond the level of language acquisition achieved at the elementary levels, and to enable them to communicate in some real life situations. Strong emphasis is placed on both written and oral

language production, as well as comprehension of more complex written material. French III moves students beyond a reproduction of simple structures, to the production of complex structures so that they will be able to communicate more comfortably with native speakers. *Prerequisite: HLF 102 or permission of instructor. (Foreign Language and Humanities General Education Course).*

HLF 202 Intermediate French IV 3.0 credits. IV is a continuation of French III, and builds on the skills developed as to the production of complex structures. It places students in situations where they are required to use the target language exclusively. Mastery of all four language skills, listening, speaking, reading and writing is emphasized and accomplished through a variety of instructional methods and media. Students at this level will be able to communicate with a native speaker with ease. They are also introduced to the study of literature through the reading of stories and poems, as well as excerpts of novels and plays of well known French and francophone writers. Students will engage in more advanced readings and research on the cultures and societies of the countries in which the language is spoken using both print and electronic media. *Prerequisite: HLF 201 or permission of instructor. (Foreign Language and Humanities General Education Course).*

HLF 301 Adv French Grammar & Composition 3.0 credits. This course presents the more complex elements of grammar, syntax and composition. Students will read and respond appropriately to a variety of complex texts and authentic materials written in the target language with the native speaker in mind and geared towards providing information and completing tasks necessary for everyday functioning in a French speaking environment. The student will express him/herself in writing using grammatically correct complex structures and a variety of writing styles in a variety of situations. *Prerequisite: HLF 202.*

HLF 302 Advanced French Conversation 3.0 credits. This course serves to develop linguistic fluency in students so that they can communicate effectively in the target language using the spoken word. Students will be taught to use culturally appropriate language in everyday life including formal and informal settings with native speakers, will produce linguistically correct phraseology and use correct pronunciation, intonation, accentuation and rhythm. Special emphasis will be placed on linguistic differences existing between various francophone cultures. *Prerequisite: HLF 202.*

HLF 304 French Phonetics 3.0 credits. This course is designed to familiarize students with and instruct them in the sound system and oral language production of the target language. Emphasis is placed on correct diction, pronunciation rhythm and intonation. The International Phonetic Alphabet will also be used for the transcription of sounds. Instructional methods will include listening to and analyzing pre-recorded materials, pronunciation drills, presentations, dialogs and transcriptions. Methods of assessment will include evaluation of oral production through readings and presentations, and tests and quizzes of transcriptions. *Prerequisite: Two years of college French or the equivalent.*

HLF 305 French Civ Cul 3.0 credits. This course presents the history, culture, products and practices of the francophone and peoples, as well as their art and literature; and examines their social interactions. Contemporary culture and the relationships between these countries and with others will also be explored. Language will be studied as a function of and as influenced by all of these social elements. *Prerequisite: HLF 202.*

HLF 405 Mod Fr Drama 3.0 credits. History of the avant-garde environment. Existentialist drama and the new avant-garde. *Prerequisite: HLF 301 or consent of the instructor.*

HLF 406 French Novel 3.0 credits. Most representative novels of the 20th and 21st century. *Prerequisite: None.*

HLF 408 Fr Lit Out Fr 3.0 credits. French Literature. *Prerequisite: None.*

HLS 101 Elementary Spanish I 3.0 credits. This course introduces students to the basic elements of the Spanish language, focusing on the development of communicative skills in the language as it is spoken by native speakers. Emphasis is placed on all four language skills: speaking, listening, reading, and writing. An overview of the cultures of Spanish speaking peoples of the world is an integral part of the coursework. *Prerequisite: None.* **(Foreign Language General Education Course).**

HLS 102 Spanish II 3.0 credits. This course is a continuation of Spanish I, and will build upon the knowledge acquired in Spanish I. More emphasis is placed on assisting the students to apply their skills in the language. *Prerequisite: HLS 101.* **(Foreign Language General Education Course).**

HLS 201 Intermediate Spanish III 3.0 credits. This course will review grammatical principles, verbs and idioms. The focus of the course will be to improve readings and writing skills. Students will be exposed to a diverse selection of literary readings and fine arts. *Prerequisite: HLS 102.* **(Foreign Language and Humanities General Education Course).**

HLS 202 Intermediate Spanish IV 3.0 credits. This course will expand and increase writing and reading in the language through in-depth understanding of grammatical structures and concepts. Cultural readings will be part of the course work. *Prerequisite: HLS 102 or permission of instructor.* **(Foreign Language and Humanities General Education Course).**

HLF 301 Adv Sp Comp & Gr 3.0 credits. An intensive workshop course in which students will write different types of compositions including, but not limited to, description, narration, comparison and contrast, analysis, synthesis, and argumentation. In this workshop, grammar is seen as more than a set of rules. Grammar is studied as a practical tool to express thoughts, feelings, and perspectives. As the students write, they will refer to direct, concise grammatical examples in a state-of-the-art dictionary that will lead them step by step, to write correctly in a foreign language. Some basic research is required to support students' theses in their papers. *Prerequisite: HLS 202 or permission of instructor.*

HLS 303 Sp Civ Cult 3.0 credits. Spanish Civilization and Cultures will survey the rise of the cultures of Spain and Latin American from the formation of the civilization and cultures to the present time. Discussions will be centered on history, politics, customs, literature, art music and all other aspects of Hispanic cultures. Class materials will be presented using a timeline. All lectures and assignments will be in Spanish. *Prerequisite: HLS 301.*

HLS 304 Span Phonetics 3.0 credits. This course is designed to teach students the phonetic system of the Spanish language. *Prerequisite: HLS 301.*

HLS 306 Adv Conv Span I 3.0 credits. Advanced Spanish Conversation is designed to assist students practice the oral communication skills they need as educated professionals, community leaders and future teachers. Students will engage in dialogues, panels and will prepare short speeches to present them in class. They will receive immediate feedback from peers and faculty evaluators. *Prerequisite: HLS 202, permission of instructor.*

HLS 311 Surv Sp Lit I 3.0 credits. An introductory course comprising significant works from the Poems of Mio Cid through the Golden Age. Students will learn to recognize major literary movements by identifying their characteristic features in selected genres written throughout these times. Accordingly, students will analyze epic poetry, prose models, and drama written by Spanish authors. Works will be interpreted in the light of historical, political, social and/or economic contexts. *Prerequisite: HLS 301.*

HLS 405 Cont Sp Am Lit 3.0 credits. An intensive study of 20th and 21st Century Spanish American Literature with a focus on the novel and short story. *Prerequisite: HLS 301 or permission of instructor.*

HLS 406 Latin Am Novel 3.0 credits. The study of the novel in Spanish America from its beginning through the novel of the Mexican Revolution. *Prerequisite: HLS 301 or permission of instructor.*

HLS 407 Cont Span Lit 3.0 credits. The Literature of Spain from the 1989 to the present with an emphasis on the novel and drama. *Prerequisite: HLS 301 or permission of instructor.*

HUM 101 Band I 1.0 credit. Band I. *Prerequisite: None.* **(Humanities General Education Course)**

HUM 102 Band II 1.0 credit. Band II. *Prerequisite: None.* **(Humanities General Education Course).**

HMU 112 Survey of Music 3.0 credits. A brief survey of historical development of the various aspects of music and their stylistic characteristics. *Prerequisite: None.* **(Humanities and Global Studies General Education Course).**

HMU 114 Piano Class I 3.0 credits. Beginning and intermediate instruction in small groups with ample opportunities for individual development. *Prerequisite: None.* **(Humanities General Education Course).**

HMU 115 Piano Class II 3.0 credits. A continuation of Piano I; group instruction on the intermediate level. *Prerequisite: Piano I or equivalent.* **(Humanities General Education Course).**

HMU 200 Fundamentals of Music 3.0 credits. Basic technique and principles of music; development of tonal, rhythmic, and harmonic structure. *Prerequisite: None.* **(Humanities General Education Course).**

HMU 201 Music Theory I 3.0 credits. Elementary harmonic techniques utilized in chord structure. Basic skills in keyboard harmony and melodic dictation. *Prerequisite: None.*

HMU 202 Music Theory II 3.0 credits. A continuation of Music Theory I; course stresses advanced diatonic and chromatic harmonic techniques. *Prerequisite: HMU 201 or equivalent.*

HMU 203 Solfeggio and Dictation I 3.0 credits. Develops basic skills in singing at sight melodies that involve diatonic and chromatic intervals; aural training in techniques of melodic dictation. *Prerequisite: HMU 201 or equivalent.*

HMU 204 Solfeggio and Dictation II 3.0 credits. A continuation of Solfeggio and Dictation I stressing advanced interval modulations and progressions. *Prerequisite: HMU 203 or equivalent.*

HMU 205 Fundamentals of Music II 3.0 credits. A continuation of Fundamentals of Music I. *Prerequisite: HMU 200. (Humanities General Education Course).*

HMU 207 Band IV 1.0 credit. Band IV. *Prerequisite: None. (Humanities General Education Course).*

HMU 212 Voice I 3.0 credits. Develop techniques of vocal production; solo and ensemble approaches utilized in the various aspects of singing. *Prerequisite: permission of instructor. (Humanities General Education Course).*

HMU 214 Voice II 3.0 credits. A continuation of Voice Class I, utilized vocal techniques of Art song literature and skills of correct interpretation. *Prerequisite: HMU 212 or equivalent and permission of instructor. (Humanities General Education Course).*

HMU 215 Choir 1.0 credit. Open to all students of the university interested in the study and performance of choral music. Daily rehearsals during regular college hours and, as scheduled, during evenings. Students may earn a maximum of four semester hours for four years of participation. *Prerequisite: None. (Humanities General Education Course).*

HMU 216 Choir 1.0 credit. Open to all students of the university interested in the study and performance of choral music. Daily rehearsals during regular college hours and as scheduled during evenings. Students may earn a maximum of four semester hours for four years of participation. *Prerequisite: None. (Humanities General Education Course).*

HMU 217 Choir 1.0 credit. Open to all students of the university interested in the study and performance of choral music. Daily rehearsals during regular college hours and, as scheduled, during evenings. Students may earn a maximum of four semester hours for four years of participation. *Prerequisite: None. (Humanities General Education Course).*

HMU 218 Choir 1.0 credit. Open to all students of the university interested in the study and performance of choral music. Daily rehearsals during regular college hours and, as scheduled, during evenings. Students may earn a maximum of four semester hours for four years of participation. *Prerequisite: None. (Humanities General Education Course).*

HMU 219 Woodwind Class 3.0 credits. Basic training in techniques of playing woodwind instruments. Individual and group instructions. *Prerequisite: permission of instructor. (Humanities General Education Course).*

HMU 220 Percussion Class 3.0 credits. Basic training in techniques of playing percussion instruments. Individual and group instruction. **(Humanities General Education Course).**

HMU 221 Keyboard Harmony I 3.0 credits. Laboratory practices in harmonic progressions at the keyboard, utilizing melodic and rhythmic figurations. *Prerequisite: HMU 207, HMU 208. (Humanities General Education Course)*

HMU 300 Music Literature I 3.0 credits. An overview of the music forms and literature of major composers up to and including the Baroque Period; and investigation of stylistic characteristics. *Prerequisite: HMU 112 or its equivalent.*

HMU 301 History of Music Literature II 3.0 credits. An overview of the music forms and literature of the major composers up to and including the Modern-Contemporary period; an

investigation of stylistic characteristics and major contribution. *Prerequisite: HMU 300 or equivalent.*

HMU 302 History of African American Music I 3.0 credits. An investigation of the major contributions of African American composers to the mainstream of music history up to and including the 18th century; independent projects are encouraged. *Prerequisite: None. (African American Heritage General Education Course).*

HMU 303 History of African American Music II 3.0 credits. An investigation of the major contributions of African American composers to the mainstream of music history during the 19th and 20th centuries; independent research encouraged. *Prerequisite: HMU 302 or equivalent. (African American Heritage General Education Course).*

HMU 304 History of Jazz I 3.0 credits. A systematic development of American Jazz from the New Orleans roots to the end of the 1920's era; analysis of the stylistic characteristics of major contributions to the idios of jazz, ragtime, and blues. *Prerequisite: None.*

HMU 305 History of Jazz II 3.0 credits. A continuation of History of Jazz I with special emphasis placed on Swing, Bebop, Progressive, Electronic Music and Hard Rock. *Prerequisite: None.*

HMU 306 Music Methods for K-6 3.0 credits A developmental and sequential study of the materials and methods used in the teaching of music grades in K-6. *Prerequisite: 200.*

HMU 309 Instrum Conducting 3.0 credits. Basic training in the techniques of instrumental conducting; instrumental ensemble used for practical experiences. *Prerequisite: permission of instructor.*

HMU 311 Counterpoint 2.0 credits. An investigation of the stylistic characteristics of the contrapuntal music of selected major composers from all periods of music history. *Prerequisite: permission of instructor.*

HMU 313 Band VI 1.0 credit. Band VI. *Prerequisite: None.*

HMU 314 Brass Class 3.0 credits. Basic training in the techniques of playing brass instruments; individual techniques involved in performance. *Prerequisite: None.*

HMU 315 Choir 1.0 credit. Open to all students of the university interested in the study and performance of choral music. Daily rehearsals during regular college hours and, as scheduled, during evenings. Students may earn a maximum of four semester hours for four years of participation. *Prerequisite: None.*

HMU 316 String Class 3.0 credits. Basic training in the playing of stringed instruments; stresses fundamental techniques involved in performance. *Prerequisite: None.*

HMU 317 Choir 1.0 credit. Open to all students of the university. The band varies its function and repertoire during the semester in support of seasonal school activities. The marching band, pep band, concert band, and stage band consists primarily of students from the university band. *Prerequisite: None.*

HMU 318 College Band I 1.0 credit. Open to all students of the university. The band varies its function and repertoire during the semester in support of seasonal school activities. The marching band, pep band, concert band, and stage band consists primarily of students from the university band. *Prerequisite: None.*

HMU 320 Choral Conducting 3.0 credits. Basic training in the techniques of conducting choral music and choral ensembles used for practical experiences. *Prerequisite: permission of instructor.*

HMU 321 History of Spirituals and Gospel Music 3.0 credits. The historical development of the folk idioms of religious music as utilized in the free and formalized structure of the spiritual and gospel music. *Prerequisite: permission of instructor.*

HMU 322 Form and Analysis of Music 3.0 credits. This course will demonstrate the technical aspects of music composition. Minute details of composition will be investigated by analyzing examples in music literature. *Prerequisite: None.*

HMU 323 Music Merchandising 3.0 credits. This course is structured to prepare the student to make reasonable and informed choices in selecting a career within the music industry. *Prerequisite: None.*

HMU 336 Voice III 3.0 credits. Designed for Voice majors interested in vocal coaching, and an in-depth study of vocal literature (Art, Song, Opera, and Oratorio). *Prerequisite: permission of instructor.*

HMU 401 History of Opera 3.0 credits. A developmental study of the opera from the time of the Florentine School up to and including the Modern-Contemporary Period. *Prerequisite: permission of instructor.*

HMU 411 Applied Music Voice I 1.0 credits. Private studio lessons with assigned faculty members. *Prerequisite: None.*

HMU 412 Applied Music Piano I 2.0 credits. studio lessons with assigned faculty members. *Prerequisite: None.*

HMU 414 Applied Music Instrument I 1.0 credits. Private studio lessons with assigned faculty member. *Prerequisite: None.*

HMU 416 Choir 1.0 credit. Open to all students of the university interested in the study and performance of choral music. Daily rehearsals during regular college hours and, as scheduled, during evenings. Students may earn a maximum of four semester hours for four years of participation. *Prerequisite: None.*

HMU 418 Choir 1.0 credit. Open to all students of the university interested in the study and performance of choral music. Daily rehearsals during regular college hours and, as scheduled, during evenings. Students may earn a maximum of four semester hours for four years of participation. *Prerequisite: None.*

HMU 419 Band VII 1.0 credit. Band. *Prerequisite: None.*

HMU 420 Band VIII 1.0 credit. Band. *Prerequisite: None.*

HMU 422 Applied Music Voice II 2.0 credits. Continuation of HMU 411. *Prerequisite: None.*

HMU 423 Applied Music Voice III 2.0 credits. Continuation of HMU 422. *Prerequisite: None.*

HMU 433 Applied Piano II 2.0 credits. Continuation of HMU 412. *Prerequisite: None.*

HMU 434 Applied Piano III 2.0 credits. Continuation of HMU 433. *Prerequisite: None.*

HMU 435 Applied Music Voice IV 2.0 credits. Continuation of HMU 433. *Prerequisite: None.*

HMU 436 Applied Music Voice V 2.0 credits. A continuation of HMU 435. *Prerequisite: None.*

HMU 446 Applied Music Voice VI 2.0 credits. A continuation of HMU 436. *Prerequisite: None.*

HMU 447 Applied Music Voice VII 2.0 credits. A continuation of HMU 446. *Prerequisite: None.*

HMU 448 Applied Music Voice VIII 2.0 credits. A continuation of HMU 447. *Prerequisite: None.*

HMU 455 Applied Music Instrument II 2.0 credits. Continuation of HMU 414. *Prerequisite: None.*

HMU 456 Applied Music Instrument III 2.0 credits. Continuation of HMU 455. *Prerequisite: None.*

HPH 110 Critical Thinking 3.0 credits. This course is designed to develop skills in critical thinking. This includes such areas as analyzing and evaluating claims, arguments, and explanations; constructing cogent arguments, and argumentative essays; solving problems and making decisions. Attention will be given to everyday contexts such as advertising news media, text books, law, science, morality, claims of the paranormal, etc. Emphasis will be on practical application of useful principles and procedures more than on mastery of theoretical considerations. The course will follow a laboratory approach rather than a lecture format. *Prerequisite: None. (Humanities General Education Course).*

HPH 211 Introduction to Philosophy 3.0 credits. Introductory study of philosophical concerns: human knowledge, the world, morals, and politics. Lectures, readings, and classroom discussions will be used to develop philosophic interest and skills. *Prerequisite: None. (Humanities and Writing Intensive General Education Course).*

HPH 213 Ethics 3.0 credits. A study of philosophic issues concerning morality such as moral obligation and responsibility, right, wrong, and values, persons and acts, types of meaning and justification of normative claims; and representative normative issues in ethics. *Prerequisite: HPH 110. (Humanities and Writing Intensive General Education Course).*

HPH 219 Philosophy of Religion 3.0 credits. A philosophical examination of the basic concepts of the existence of God; the nature of religious belief; the relation of faith to reason; the problem of evil and suffering; the emotional and institutional aspects of religion; time and eternity and the destiny of man; freedom of the will. *Prerequisite: None. (Humanities and Writing Intensive General Education Course).*

HPH 311 Existentialism 3.0 credits. The origins and development of existentialism; its treatment of knowledge, existence and being and its significance to the present-day world. The contemporary literary and psychological ramifications of existentialism as found in Jaspers, Camus, Marcel, Kafka, and Sartre will be examined. **(Writing Intensive General Education Course).**

HPH 312 Philosophy of Arts 3.0 credits. The use of language in the description, interpretation, and evaluation of literature, music, and the fine arts in general; an analysis of the ways value judgments on aesthetic objects are made and supported. *Prerequisite: None. (Writing Intensive General Education Course).*

HPH 313 Greek Philosophy 3.0 credits. A study of classical Greek philosophy through a critical examination of selected writings of Plato and Aristotle, their treatment of universals, the structure of knowledge and related topics and their historic position and influence. *Prerequisite: None.*

HPH 314 Modern Philosophy 3.0 credits. A study of philosophical movements from Descartes through Nietzsche; Rationalism, Empiricism, Idealism, Positivism, and their contributions to philosophy and modern science. *Prerequisite: None.*

HPH 315 Contemporary Philosophy 3.0 credits. A study of major movements in contemporary philosophic thought; chief representatives Materialism, Pragmatism, Idealism, Neo-Realism, Analytic Philosophy and Existentialism. *Prerequisite: None.*

HPH 317 Social & Political Philosophy 3.0 credits. A study of philosophic issues concerning social and political life: the basis of political authority; the claims of the individual and the community, and the concept of justice. *Prerequisite: None. (Writing Intensive General Education Course).*

HPH 401 Special Topics in Philosophy 3.0 credits. Seminar study of a selected problem or an intensive study of the thought of one major philosopher. May be taken for credit more than once. *Prerequisite: three credits in Philosophy and permission of instructor. (Writing Intensive General Education Course).*

HRM 111 Introduction to Service Management 3.0 credits. This introductory course examines the organizational aspects of the industrial and scientific segments of the hospitality industry. Aspects of food service, spa management, history, hotel management, and human resources will be explored. *Prerequisite: None.*

HRM 214 Menu Planning and Analysis 3.0 credits. The course was designed to focus on the development and analysis of menus to ensure profitability while remaining within equipment capabilities and design. Information and ideas to enhance sales and provide a perception of value will be evaluated. These efforts will enhance the students operated restaurant.

Prerequisite: None.

HRM 221 Hospitality Purchasing 3.0 credits. Students are engaged in distinguishing food service purchasing, computer programs, and HACCP flow-thru. Storage and evaluation of fresh, frozen, dry, and canned food stuffs are discussed by sensitivity exercises and problem solving activities. *Prerequisite: None.*

HRM 223 Travel and Tourism 3.0 credits. Explains travel agency operation drawing upon a wide range of basic disciplines to provide the fundamental knowledge and skills that are required to fulfill the demands placed upon those in management positions in the hospitality industry; includes basic ticketing, history of travel airlines, steamships, cruises, rail and bus transportation, world travel areas, codes and industry travel terms. *Prerequisite: None.*

HRM 310 Manage Hotel Operations 3.0 credits. This course introduces students to the challenging environment of a property operations management within the context of lodging. Problem solving and decision makes skills collaborate analytical tools. Elements of housekeeping, managerial, engineering, financial, and legal issues are explored with case studies and assigned readings incorporating current hospitality issues. *Prerequisite: None.*

HRM 321 Hospitality Market and Sales 3.0 credits. This course displays the reciprocal relationship between the customer and hospitality marketing practices. A full scope of sales and event management are addressed along with the development of elements necessary to the outcomes of the negotiation process and contracts which are customary in the hospitality industry. *Prerequisite: None.*

HRM 331 Quantity Food Production 3.0 credits. Management principles and concepts are presented through lecture, problem based learning, projects and operation of the program restaurant. The class focuses on menu planning principles, food service operation, standardization, food production planning, sanitation and service. The laboratory allows students a practical experience in the management and operation of a food service operation. The lab creates an awareness of the importance of team work, planning, organization and supervision in food service operations. *Prerequisite: None.*

HRM 333 Hospitality Law 3.0 credits. Students are provided with an integrated presentation of the legal aspects of hospitality management. Employment discrimination, contractual concepts, federal cases, state cases, and statutes will be explored. Simulations, role playing, simulators, and problem solving exercises will consolidate the over-all concept of law within the hospitality industry. *Prerequisite: None.*

HRM 359 Event, Convention and Meeting Planning 3.0 credits. This course is designed to allow students hands on comprehension in the art of trade shows and exhibitions. An emphasis is placed on all aspects pertaining to marketing, audiovisual, pre-planning, and orchestrating a profitable event within the hospitality industry. Field trips to pre-selected hotels and convention centers will connect theory and hands on learning practices. *Prerequisite: None.*

HRM 361 Catering 3.0 credits. Emphasis is placed on the development, management, and presentation of food styling. Students will work collaboratively to plan and create functions and buffets. An integrated curriculum combining theoretical and practical instruction emphasizes the scientific methods of the preparation and processing of food and beverage in a laboratory environment. *Prerequisite: None.*

HRM 421 Hospitality Management and Gaming 3.0 credits. This course is focused on the management of Casino Operation. It is designed for students to explore the history of the gaming industry and how it is rapidly growing throughout the United States. Apply managerial skills, utilizing gaming regulation, staffing resources, marketing strategies, accounting concepts, and much more will be stressed. *Prerequisite: None.*

HRM 461 Hospitality Cost Control 3.0 credits. This upper-level course integrates problem-solving and laboratory experiments. Emphasis is placed on profit planning, food service concepts, labor, and income statements. The various concepts allow students to use technology to explore a variety of issues impacting hospitality financial management. *Prerequisite: None.*

HRM 462 Field Experience 6.0 credits. This introductory work-experience course assimilates course work, hands on learning, and reinforces techniques learned in theory. Students are exposed to a detailed on-campus field experience while having access to off-campus intern opportunities resulting in a broader understanding of the hospitality industry. It includes day, evening, and weekend shifts. *Prerequisite: None.*

HRM 463 Internship – Hotel, Restaurant and Tourism Management Program 3.0 credits. This course is designed to provide juniors and seniors students with a development approach to on-the-job experiences in hospitality facility/settings under a qualified supervisor. It also provides students, in a hospitality industry, with decision making and managerial learning experiences. Internships are designed to prepare students for the ever changing responsibilities in the hospitality industry. Students participate in all aspects of operating and management of the hospitality industry. The experiences allow students to gain valuable experiences and increase competitiveness in the industry. Students will demonstrate skills and competencies to perform as effective leaders in the industry. *Prerequisite: None.*

HRM 472 Hospitality Human Resource 3.0 credits. This upper-level course allows students to develop managerial knowledge with in human resources. Sensitivity exercises and problem-solving activities include: orientation, training, recruiting, testing, interviewing, terminations, union relations, and human resource management. *Prerequisite: None.*

HRM 488 Hospitality Financial Management 3.0 credits. This course familiarizes the student's foundation in food, beverage, and operational controls. Income statements and analysis's combined with current technology explores a variety of issues that impact our current global financial climate within the hospitality industry. *Prerequisite: None.*

HRM 499 Senior Seminar in Hotel, Rest & Tour 3.0 credits. This work-experience course is designed to provide students with hands on experience within the hospitality industry. Theoretical knowledge and demonstration of practical skills allow students to obtain a broader apprehension of the demands and expectations of hospitality professional. A directed senior

project will be facilitated through scientific research. It includes day, evening and weekend shifts. *Prerequisite: none.*

HTA 107 History of Theatre I 3.0 credits. Survey of dramatic and theatrical history from the Greeks to the present. Extensive readings in the dramatic literature of the various periods. *Prerequisite: None. (Humanities General Education Course).*

HTA 113 Movement I 3.0 credits. Basic dance technique is done to increase the flexibility, range, and strength of the actor's body. Exploration of the medium is done through improvisation; use of rhythm, dynamics, space, and gesture. The body becomes a dramatic agent. *Prerequisite: None. (Humanities General Education Course).*

HTA 129 History of Theatre II 3.0 credits. Survey of dramatic and theatrical history from the Greeks to the present. Extensive readings in the dramatic literature of the various periods. *Prerequisite: None. (Humanities General Education Course).*

HTA 144 Movement II 3.0 credits. Advanced techniques and further work in improvisation. Survey and study of styles of movement. *Prerequisite: HTA 113. (Humanities General Education Course).*

HTA 159 Theater Practicum I 1.0 credit. A laboratory for performance encompassing all work required to prepare and present a play. *Prerequisite: None. (Humanities General Education Course).*

HTA 160 Theater Practicum II 1.0 credit. Continuation of Theater Practice I. *Prerequisite: None. (Humanities General Education Course).*

HTA 203 Acting for Beginners 3.0 credits. Acting as the organic interrelation of self and environment. Release of the actor's individuality through improvisational exercises in relaxation and physical freedom; uses of the sense: observation; justification action; handling of objects; speaking and listening, beginning work on dialogue and text. *Prerequisite: None. (Humanities General Education Course).*

HTA 224 Art of Staging 3.0 credits. The course will assist the student in learning how to stage artistically satisfying productions in various kinds of settings, particularly non-traditional performance space. *Prerequisite: None.*

HTA 235 Creative Uses Light 3.0 credits. Elementary theory relating to light, pertinent optics, and electrical control. General principles and practices of stage lighting, with emphasis upon the creative use of light with available equipment. *Prerequisite: None. (Humanities General Education Course).*

HTA 246 Costume Design 3.0 credits. Principles and practices of costume design and construction; evolution of stage costume; survey of historical periods and their application to the stage-period play; color, line, form, materials, and construction; sewing and cutting work, work on costumes for production. *Prerequisite: None. (Humanities General Education Course).*

HTA 250 Theater Practicum III 1.0 credit. Continuation of Theater Practice II. *Prerequisite: None. (Humanities General Education Course).*

HTA 258 Make-up Techniques 1.0 credit. Theories and principles of stage make-up, as related to dramatic production as a whole, covering anatomy, color, light, character, age, type, race, and period make-up with practical laboratory experience. *Prerequisite: None.* **(Humanities General Education Course).**

HTA 269 Theater Practicum IV 1.0 credit. Continuation of Theater Practice III. *Prerequisite: None.* **(Humanities General Education Course).**

HTA 301 Fundamentals of Play Directing 3.0 credits. This course will introduce the principles and practices of directing techniques and workshop experience in all phases of theatrical production: script analysis, blocking, lighting design, and acting techniques. A laboratory for creating artistic stage pictures and truthful scenes on stage. *Prerequisite: None.*

HTA 314 Speech for Stage 3.0 credits. Speech techniques for the stage: relaxation, breath control, resonance, articulation, and projection. Physiology of the vocal tract. Early training in speech appreciation and speech analysis. The phonetic alphabet and standard American pronunciation; elementary phonetic transcription. *Prerequisite: None.*

HTA 317 Play Production 3.0 credits. Study of physical plant, organization, and production problems of the educational, community, and professional theaters. *Prerequisite: None.*

HTA 356 Black Drama in 50's 3.0 credits. The 1950's witnessed a coming of age of Black Drama. The old images were discarded in favor of psychologically and emotionally credible presentations. This course will examine primarily the contributions of Louis Peterson, Lorraine Hansberry, Alice Childress, William Branch, and Loftin Mitchell. *Prerequisite: None.* **(African American Heritage General Education Course).**

HTA 361 Black Drama in the 60's 3.0 credits. The 1960's sounded the death knell for the stereotypes and found the black dramatist exploring a myriad of subjects of interest to him/her. Ossie Davis, Lorraine Hansberry, Adrienne Kennedy, Douglas Turner Ward, Lonne Elder, Edgar White, and Charles Gordone have made contributions which have had and are having far-reaching implications on the stage. This course will study these contributions. *Prerequisite: None.*

HTA 372 Black Revolutionary Drama 3.0 credits. Though most contemporary, the black revolutionary drama can claim an ancestry on the Medieval morality plays in its insistence upon the dramatization of a creed. LeRoi Jones may be considered the high priest of black revolutionary drama. This course will examine this drama of a revolt with the aim of delineating the black dramatist's view of the university. *Prerequisite: None.* **(African American Heritage General Education Course).**

HTA 379 Theater Practicum V 1.0 credit. Continuation of Theater Practice IV. *Prerequisite: None.*

HTA 380 Theater Practicum VI 1.0 credit. Continuation of Theater Practice V. *Prerequisite: None.*

HTA 411 Modern Drama 3.0 credits. Survey covering the principal playwrights, movements, and trends in European and American drama from Ibsen to the present day. Students are required to read, study, and analyze works of major dramatics. *Prerequisite: None.*

HTA 444 Theatre Workshop 3.0 credits. Workshop experience in all phases of theatrical production: acting, directing, theater management, and technical production. May be repeated to a maximum of six semester hours. *Prerequisite: None.*

HTA 455 Dramatic Criticism 3.0 credits. History, method and theories of dramatic criticism from Aristotle to the present. *Prerequisite: None. (Writing Intensive General Education Course).*

HTA 473 Contemporary Black Drama 3.0 credits. This course will examine black drama since 1950. The '50s witnessed the coming of age of black drama with contributions from such playwrights as Louis Peterson, Lorraine Hansberry, Alice Childress, William Branch, Loftin Mitchell, and James Baldwin. The '60s produced dramas by Ossie Davis, Adreinne Kennedy, Douglas Turner Ward, Lonne Elder, Charles Gordone, and Edgar White, to name a few. Also, the plays of LeRoi Jones (Imamu Amiri Baraka), Ed Bullins, Ben Caldwell, Ron Milner, Kingsley Bass, Jr., and Richard Wesley will be studied as a drama of revolt. *Prerequisite: None.*

IAC 211 Non-Linear Video Editing/Post Productions 3.0 credits. This course centers around the use of computerized video editing and post-production equipment. Emphasis is placed on development of skills that are applicable in video productions and TV broadcast industries. *Prerequisite: None.*

IAV 311 Photography – 3.0 credits. Black and white photography, processing, image manipulation, enlarging, studio techniques, negative and print corrections. The history and development of the camera will be studied. Picture composition and lighting will be presented. Students must supply their own camera and film. The basic camera used is the SLR 53mm. Digital photography and computer technology will be demonstrated. *Prerequisite: None.*

MAT 001 Basic Math 3.0 credits. Terminology and operations associated with the whole numbers, integers, fractions, decimals, percent, ratios, rates and proportions, problem-solving, and introduction to algebra. Credits are not transferable and are not applicable toward the 120 credits required for graduation. *Prerequisite: None.*

MAT 002 Elementary Algebra 3.0 credits. The language of algebra; from arithmetic to algebra, signed numbers, real numbers, linear equations and inequalities, polynomials, factoring, rational expressions, graphing linear equations and inequalities. Credits are not transferable and are not applicable toward the 120 credits required for graduation. *Prerequisite: None.*

MAT 104 Survey of College Mathematics 3.0 credits. Sets, number theory, real number system, algebraic techniques, plane geometry, and an introduction to probability and statistics. *Prerequisite: None. (Mathematics General Education Course).*

Mat 105 Mathematics for Teachers I 3.0 credits. This course examines the mathematics content on which elementary and special education teachers of mathematics at any level need to know in order to teach K-8 mathematics and to address the curriculum standards in elementary school mathematics. The course surveys many relevant topics including sets and logic, number systems, structure of algorithms, number theory, properties of integers, rational

numbers and real numbers and introduction to geometry and measurement. A great emphasis is placed on problem solving and reasoning within each of these topics. This is a required course for all elementary and special education majors. *Prerequisite: None.* **(Mathematics General Education Course).**

MAT 106 Mathematics for Teachers II 3.0 credits. This course is a continuation of MAT 105 and provides more topics relevant to teaching Elementary Education. Topics include algebra, full treatment of geometry and measurement, probability and statistics, graphing, and further emphasis on problem solving. This is a required course for all Elementary Education majors. *Prerequisite: MAT 105.* **(Mathematics General Education Course).**

MAT 111 Intermediate Algebra 3.0 credits. Solving and graphing linear equations and inequalities, systems of linear equations, factoring, rational expressions, exponents and radicals, and solving and graphing quadratic equations. *Prerequisite: MAT 104.* **(Mathematics General Education Course).**

MAT 150 Elementary Functions 4.0 credits. This course covers a review of the prerequisite skills from algebra that are required for success in Calculus. It is assumed that students taking this course have successfully completed an elementary and intermediate level algebra course. Course topics include: Functions, polynomial, rational, exponential, logarithmic, trigonometric, graphs, trigonometric identities, equations and formulas. *Prerequisite: MAT 111.* **(Mathematics General Education Course).**

MAT 160 Calculus I 4.0 credits. Review of topics from elementary functions. Limits of functions and continuity are introduced. Differentiation of algebraic functions, implicit differentiation, extrema, curve sketching and other applications; integration of algebraic functions and applications of the integral. *Prerequisite: MAT 150.* **(Mathematics General Education Course).**

MAT 170 Calculus II 4.0 credits. Derivatives and integrals of transcendental and inverse functions, applications of integrals, techniques of integration, improper integrals, infinite sequences and series, Taylor polynomials and series, parametric equations, and polar coordinates. *Prerequisite: MAT 160.*

MAT 202 Discrete Math 3.0 credits. Set theory, mapping and functions, mathematical induction, logic and logic circuits, relations on sets, permutations, combinations, graph theory, and theory of equations. *Prerequisite: None.*

MAT 203 Linear Algebra I 3.0 credits. Linear equations and matrices, real vector spaces, inner product spaces, linear transformations and matrices, and determinants. *Prerequisite: MAT 160.*

MAT 205 Elementary Statistics 3.0 credits. Topics covered include: organization of data, measure of central tendency and dispersion, probability, probability and distributions, sampling distributions, estimation, chi-square distribution, and correlation. *Prerequisite: MAT 111.*

MAT 221 Differential Equations 3.0 credits. Introduction to differential equations, first order differential equations and applications. Differential equations with variable coefficients Laplace transform, and systems of linear differential equations. *Prerequisite: MAT 170.*

MAT 225 Probability and Statistics I 3.0 credits. Designed for mathematics education majors, this course provides a rigorous study of probability, distribution theory and the basics of statistical inference. Topics include probability, expectation, discrete and continuous distributions, descriptive statistics and both estimation and hypothesis testing for one and two sample problems. *Prerequisite: MAT 170.*

MAT 252 Introduction to Abstract Algebra 3.0 credits. Ideas of sets, relations and mappings, operations and group theory leading to the fundamental theory of group homomorphism, properties of rings, integral domains and fields, including the integers and the rational numbers of polynomials. *Prerequisite: MAT 202.*

MAT 255 Statistics II 3.0 credits. Probability, random variables and probability distributions, mathematical expectation, special probability distributions and probability densities. Functions of random variables, sample distributions, point estimation, interval estimation, hypothesis testing theory and applications. Stochastic processes. *Prerequisite: MAT 225.*

MAT 260 Calculus III 4.0 credits. Vectors in plane and in space, functions of more than one variable, vector values functions, partial derivatives, maxima and minima, multiple integration, topics from vector analysis such as Green's theorem, surface integrals, divergence theorem, and Stoke's theorem. Hours: 4. *Prerequisite: MAT 170.*

MAT 303 Linear Algebra II 3.0 credits. Vector spaces; linear independence, bases and dimension; inner product spaces and orthogonality; diagonalization, eigenvalues and eigenvectors; canonical forms; linear functions; dual spaces; linear operators on inner product spaces. *Prerequisite: MAT 203.*

MAT 331 Numerical Analysis 3.0 credits. Numerical integration and numerical solutions of differential equations, numerical methods in linear algebra, matrix inversion, estimation of characteristic roots, and error propagation and stability. *Prerequisite: MAT 203, MAT 170.*

MAT 335 Elementary Number Theory 3.0 credits. Selected topics in number theory and types of proofs of use to mathematics, education, and computer sciences majors; a study of divisibility, the division algorithm, Euclid's algorithm, prime numbers, congruence, number theoretic functions, Fermat and Wilson theorems, and quadratic reciprocity, Encryption. *Prerequisite: MAT 170, MAT 203.*

MAT 360 History of Mathematics 3.0 credits. The historical development of mathematics from classical civilization in Egypt, Babylon, and Greece; the people, the topics and the problems. The development of mathematics through Calculus. *Prerequisite: MAT 170, MAT 202.*

MAT 361 Applied Mathematics 3.0 credits. The historical development of mathematics from classical civilization in Babylon, Egypt and Greece; the people, the topics, and the problems. The development of Mathematics through Calculus.

MAT 362 Modern Geometry 3.0 credits. An overview of geometry in the light of modern trends with special attention to axiomatic structure, including and introduction to hyperbolic and elliptical geometry. *Prerequisite: MAT 202.*

MAT 401 Intro Real Analysis 3.0 credits. A rigorous development of the methods of the calculus, including the topology of the real line, limits, continuity, derivatives, sequences, and series of numbers, sequences and series of functions, uniform convergence and The Riemann Integral. *Prerequisite: MAT 260.*

MAT 411 Introduction to Complex Variables 3.0 credits. The complex numbers, elementary functions and their mappings, boundary value problems, contour mapping, Cauchy's theorem, residues, and power series. *Prerequisite: MAT 260.*

MAT 418 Student Teaching and Professional Practicum 12.0 credits. Students spend 30 clock hours a week during the entire seventh or eighth semester in observation of teaching, in supervised teaching, and in seminar, where they are introduced to a teacher's responsibilities in the classroom and in the community. *Prerequisite: permission of instructor.*

MAT 451 Intro Topology 3.0 credits. Basic notions of point-set topology, surfaces, invariants, topological spaces, equivalence, connectedness, completeness, and separation. Introduction to differential topology. *Prerequisite: MAT 362, MAT 401.*

MAT 499 Independent Study Math 3.0 credits. Directed study of a project selected from a specified area of the field. Details and documentation required. *Prerequisite: permission of instructor.*

NFT 211 Mat, Saf, Hlth, Iss & Eq Bs to NanoFab 3.0 credits. This course provides an overview of basic nanofabrication processing equipment and materials handling procedures with a focus on safety, environment, and health issues. Topics covered include cleanroom operation, environmental, safety, and health issues, vacuum pump systems operation, environmental safety and health issues (covering direct drive mechanical, roots blowers, turbomolecular, and dry mechanical systems); thermal-processing equipment operation, safety, environmental, and health issues (covering horizontal, vertical, rapid thermal annealing tool); chemical vapor deposition system operation, safety, environmental, and health issues (covering gas delivery, corrosive and flammable gas storage and plumbing, regulators, and mass flow controllers); and vacuum deposition/etching system operation, safety, environment, and health issues (covering microwave and RF power supplies and tuners, heating and cooling units, vacuum gauges, valves, and process controllers). Specific materials handling issues includes those arising from using deionization water; solvents; cleansers; organic materials, ion implementation sources, diffuser sources, photo resists, developers, metal dielectrics, and toxics, flammable, corrosive and high purity gases as well as packaging materials. *Prerequisite: SPH 211.*

NFT 212 Basic Nanofabrication Process 3.0 credits. The course provides an overview of basic processing steps used in all applications of nanofabrication. Both top-down and bottom-up nanofabrication are included. The majority of the course details a step-by-step description of the equipment and processes needed to fabricate devices and structures such as biochips, CMOS transistors, power devices, microelectromechanical (MEM) devices, and opto-electronic structures. Students learn the similarities and differences in both the equipment and process flows needed in fabricating all of these various structures. *Prerequisite: SPH 211.*

NFT 213 Thin Film Utilization in Nanofabrication 3.0 credits. This course covers thin film deposition and etching practices in nanofabrication. The deposition techniques addressed in the first part of the course include atmospheric, low pressure, and plasma enhanced chemical

vapor deposition and sputtering, thermal evaporation, and beam evaporation physical vapor deposition. Also included are self-assembling molecule based techniques. Materials considered include organics, dielectrics (e.g., nitrides, oxides), polysilicon (doped and undoped), metals (e.g., aluminum, tungsten, copper), adhesion promoters and diffusion barriers. The second part of the course focuses on etching processes and emphasizes reactive ion etching (single wafer, batch), high-ion-density reactors, ion beam etching and wet chemical etching. Students receive hands-on experience in depositing and etching dielectric, semiconductor, and metal materials using state-of-the-art tools and experience practicing the steps critical to micro- and nanofabrication of structures used in a variety of fields from biotechnology and the biomedical fields to microelectronics. *Prerequisite: SPH 211.*

NFT 214 Lithography in Nanofabrication 3.0 credits. This course covers all aspects of lithography from design and mask fabrication to pattern transfer and inspection. The course is divided into three major sections. The first section describes the lithographic process from substrate preparation to exposure. The second section examines the processes from development through inspection (both before and after pattern transfer). This section introduces optical masks, aligners, steppers and scanners. In addition, critical dimension (CD) control and profile control of photo resists are investigated. The last section discusses advances in optical lithographic techniques such as phase shifting masks and illumination schemes as well as molecular ruler, e-beam, x-ray, EUV, and ion beam lithography. *Prerequisite: SPH 211.*

NFT 215 Materials Modification in nanofabrication 3.0 credits. This course covers in detail the processing steps used in modifying material properties in nanofabrication. Included are chemical reaction, growth and annealing processes. The impact of thermal processing on defects, gettering, and impurities and overall electrical, mechanical, optical, and chemical properties are studied. The student grows and measure gate and field oxides, implants and activates source and drain regions, and evaluates thermal budget requirements using state-of-the-art tools. Included also are other modification technologies such as ion implantation, diffusion and chemical surface preparation and treatment. Substrate preparation, processing such as slicing, etching, polishing and epitaxial growth are also covered. *Prerequisite: SPH 211.*

NFT 216 Characterization, Pack & Testing in Nanofabrication 3.0 credits. This course examines a variety of measurements and techniques essential for controlling micro- and nanofabrication processes. Monitoring techniques such as residual gas analysis (RGA), optical emission spectroscopy (OES) and end point detection are discussed. Characterization techniques such as scanning electron microscopy x-ray photoelectron spectroscopy, atomic probe methods advanced optical microscopy; optical thin film measurements, ellipsometry, and resistivity/conductivity measurements are introduced and tied to process control. Basic measurements for yield analysis and process control are also stressed. These include breakdown measurements, junction testing, and capacitance-voltage and current collapse characterization. In addition, the characteristic of some simple bio-chip structures and MEMs devices are obtained and discussed. The student learns about the manufacturing issues involved in inter connects, materials compatibility and final device assembly. Aluminum refractory metals and plastic fabrication techniques and characterization are discussed in detail along with topics such as diffuser barriers, contact, resistance, electric migration, corrosion and adhesion. The importance of planarization techniques such as deposition/etch bond and chemical/mechanical polishing are emphasized. Lastly, procedures such as die separation, bonding and sealing and final test for both conventional ICs and MEMs and biomedical devices are examined. *Prerequisite: SPH 211.*

REC 111 Health and Wellness 2.0 credits. Personal and community problems. Emphasis on problems in adult life, the environment, use of drugs, tobacco, alcohol, sexually transmitted disease, communicable disease, and sex education. *Prerequisite: None.* **(Core General Education Course).**

REC 113 Tennis and Volleyball 1.0 credit. The various physical education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 114 Weight Training and Jogging 1.0 credit. The various physical Education sports activity classes provides a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 116 Archery, Badminton, Basketball 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 118 Tennis and Badminton 1.0 credit. The various physical education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 119 Archery and Volleyball 1.0 credit. The various physical education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 120 Golf and Volleyball 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 121 Dance, Mod, Flk, Square, Afro Am 1.0 credit. The various physical education Sports activity classes provides a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 123 Football, Track and Wrestling 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 125 Field Hockey and Basketball 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 127 Volleyball and Basketball 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 128 Softball, Track and Wrestling 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 130 Softball and Basketball 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 132 Tennis 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 133 Tennis and Basketball 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 136 Football and Volleyball 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 137 Soccer and Volleyball 1.0 credit. The various physical Education sports activity classes provide a general knowledge of each activity. Students will learn fundamental skills and technical aspects of each activity. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 210 Officiating 3.0 credits. A laboratory course. Motivational techniques; procedures, and practices associated with sport officiating. Knowledge of roles and the proper execution of mechanics. The importance of maintain a grasp of overall responsibilities, capabilities, and motivations related to specific sports contents. *Prerequisite: None.*

REC 211 Principles of Coaching 3.0 credits. Understanding and being able to cope with the varied experiences would include: ordering equipment, preparing schedules, recruiting, scouting, planning practices, planning travel, interviewing, writing resumes, raising funds, and planning budgets. *Prerequisite: None.*

REC 213 Beginning Swimming 1.0 credit. For the non-swimmer or the swimmer with limited skills. Basic skills fundamental to swimming; body and breath control, rhythmic breathing, propulsion, floating, kick and arm strokes. Safety habits. *Prerequisite: None.* **(Health and Wellness General Education Course).**

REC 214 Intermediate Swimming 1.0 credit. To develop and improve skills and to introduce different styles of swimming, the American crawl, side, breast, and back strokes. Safety procedures. *Prerequisite: None. (Health and Wellness General Education Course).*

REC 215 Advanced Swimming 1.0 credit. A review of styles of swimming, skills, water safety procedures and advanced life saving. *Prerequisite: None. (Health and Wellness General Education Course).*

REC 216 Advanced Beginning Swimming 1.0 credit. For the beginning swimmer with some basic skills in the water. A continuation of beginning skills on an advanced level. *Prerequisite: None. (Health and Wellness General Education Course).*

REC 310 Safety Education 3.0 credits. The organization and administration of safety procedures relevant to recreation areas. Methods of imparting safety education to the recreationist. *Prerequisite: None. Offered: Spring term.*

REC 314 Methods of Teaching Health and Physical Education 2.0 credits. Required for elementary education majors. Materials, methods, and techniques essential for the teaching of health and physical education. *Prerequisite: None.*

REC 315 Diversity in Sports 3.0 credits. This course is designed to explore and analyze gender roles, equity, sexual orientation and diversity in the sports world. Personal and social values in contemporary sports will be discussed. The course will introduce federal and state laws that effect sports in the areas of sex, race and discrimination. *Prerequisite: None.*

REC 316 Leisure in Modern Society 3.0 credits. History and development of the recreation movement and (1) the nature of the recreation experience and it's important to the individual, (2) the influence of leisure on society, and (3) philosophies of recreation. *Prerequisite: None. Offered: Fall term.*

REC 317 Recreation Programs 3.0 credits. Research of recreational settings and programs offered. Criteria for evaluation for use in student visits to various recreation settings in the community. *Prerequisite: None. Offered: Spring term.*

REC 318 Facility Management 3.0 credits. The latest design concepts related to recreation and park facilities including commercial and public facilities. Design and maintenance as they relate to each other and to programs and administration. Principles of planning areas and facilities for recreation and parks are explored. In addition to the design and construction of specific recreation facilities, approaches to standards and planning will be discussed. *Prerequisite: None.*

REC 319 Leadership I 3.0 credits. Leadership and its responsibilities in the various program areas. Techniques, methods, procedures, and skills of a leader in recreation. *Prerequisite: None. Offered: Fall term.*

REC 320 Recreation Management 3.0 credits. Administrative practices and legal aspects of recreational services; principles of planning and operation of recreation area and facilities;

financial and business procedures; practices and evaluation. *Prerequisite: None. Offered: Spring term.*

REC 321 Organization and Administration 3.0 credits. The organization and administration of camp operations. The philosophies of different types of camps, programming problems, and personnel. *Prerequisite: None. Offered: Fall term*

REC 322 Leadership II 3.0 credits. Material learned in Leadership I is applied in this laboratory course which gives students a "leadership" experience within lifetime activity areas. *Prerequisite: None. Offered: Spring term.*

REC 323 Law in Sport and Physical Education 3.0 credits. Students will become aware of the rights of participants, athletes, coaches, managers, teachers, referees and others engaged in amateur or professional sport. *Prerequisite: None. Offered: Fall term.*

REC 324 Sport Marketing 3.0 credits. Emphasis is on introduction to sport marketing fundamentals, case analysis, and the application of the principles of sport marketing as applied to the sport business industry. *Prerequisite: None. Offered: Spring term.*

REC 325 Creative and Cultural Activities 3.0 credits. The creative and cultural areas of recreation through participation and group presentation in arts and crafts, dance, dramatics, and music. Organizational procedures through group dynamics, available resources and practical experience. *Prerequisite: None. Offered: Fall term.*

REC 326 Sport and Society 3.0 credits. A laboratory course. Beginning skills, motivational techniques, procedures, and practices associated. *Prerequisite: None. Offered: Fall term.*

REC 327 Outdoor Recreation 3.0 credits. The meaningful relationship of recreation to the protection of the environment. Recreational activities best carried on out-of-doors and which have a direct relationship or dependence of nature. *Prerequisite: None. Offered: Spring term.*

REC 333 First Aid and CPR 3.0 credits. Standard first aid procedures and methods in line with the latest Red Cross techniques. Textbook theory combined with practical application. *Prerequisite: None. Offered: Fall term.*

REC 335 Therapeutic Recreation I 3.0 credits. Theoretical rationale for the development of therapeutic recreation services for the physically disabled, mentally ill, mentally retarded, socially deviant, and geriatric groups. Leadership and development programs. *Prerequisite: None. Offered: Fall term.*

REC 336 Individualized Fitness 3.0 credits. A wellness lifestyle concept will be examined. Fitness components, strength, cardiovascular, endurance, flexibility, exercise and weight control, body composition, management, Pilates and yoga. *Prerequisite: None. Offered: Fall and Spring terms.*

REC 337 Inclusive and Special Recreation 3.0 credits. The development of a practical approach in presenting therapeutic recreation activities in institutions, present and future. Involves students in leadership roles with special populations. *Prerequisite: None. Offered: Spring term.*

REC 338 Philosophy of Recreation 3.0 credits. A philosophical examination of the concepts, beliefs, issues and selected writings of individuals with previous experiences in recreation. Lectures, reading, and classroom discussion will be used to develop theories and philosophies. *Prerequisite: None.*

REC 339 Research and Techniques in Recreation 3.0 credits. The course examines and emphasizes the practical microcomputer applications and technological capabilities specifically used in the education field stressing fiscal management, facility design and research in creation, sports management, health and physical education. *Prerequisite: None.*

REC 401 Field Experience 3.0 credits. Completion of all electives and at least two of three other required courses in area of concentration. Along with student teaching, a field experience provides opportunity for practical application of classroom theory in recreation field work. The student, the instructor, and the agency involved in the field experience share responsibilities. *Prerequisite: None.*

REC 402 Internship 12.0 credits. Placement in a recreation setting under the supervision of a recreation professional. A weekly seminar involves the agency supervisor, faculty representative, and the student for lecture, discussion, and evaluation. *Prerequisite: REC 401.*

RGE 111 World Geography 3.0 credits. The relationship of people to their physical and cultural environment. Climate, landforms, vegetation, water and soil, and selected phases of economic activity are emphasized. *Prerequisite: None.* **(Global Studies and Social Science General Education Course).**

RGE 121 Physical Geography 3.0 credits. This course presents the basic concepts of geography, focusing on the interaction of physical processes and systems, including hydrology, meteorology, climatology, vegetation, soils, geothermal, and marine systems which characterize and shape the natural landscape. *Prerequisite: None.* **(Global Studies and Social Science General Education Course).**

RGE 241 Fundamentals of GIS (1) 3.0 credits. This course presents the basic concepts of geographic data management using geographic information systems. It introduces spatial data handling procedures, provides an overview of the uses of GIS and the major GIS application areas. A one-credit laboratory to be taken concurrently accompanies this course. *Prerequisite: None. Corequisite: RGE 242.* **(Intensive General Education Course).**

RGE 242 Fundamentals of GIS Lab I 1.0 credit. The course addresses fundamentals of geographic information science, projections, coordinate systems and the visual representation of spatial information, spatial data and basic spatial analysis and modeling. Students are instructed in the operations of a commercial desktop GIS (ArcGIS) which will include the display of data, operations on data tables, basic relational database operations and data capture. *Prerequisite: None. Corequisite: RGE 241.*

RGE 258 GIS in Critical Thinking 3.0 credits. This course focuses on applying critical thinking skills to geography and using Geographic Information Systems (GIS) for spatial data interpretation. GIS enables digital storage and processing of spatial data, which permits more people to create new maps with new perspectives easily and rapidly. Each map carries its

creator's perspective and a specific objective. *Prerequisite: None.* **(Social Science and Writing Intensive General Education Course).**

RGE 311 Geography of US and Canada 3.0 credits. The various economic regions of the United States. People's adjustment to their physical environment and the results of the adjustment in terms of population and distribution, land use, products, and trade within the United States and Canada and with other parts of the world. *Prerequisite: None.*

RGE 341 Fundamentals of GIS II 3.0 credits. This course covers processes of creating spatial data, and attribute entry into tables and continues presentation of spatial analysis techniques in addition to those covered in GIS Fundamentals I. Grid and raster operations, as well as network applications will be covered in detail. A one credit laboratory to be taken concurrently accompanies this course: *Prerequisite: None. Corequisite: RGE 342.* **(Intensive General Education Course).**

RGE 342 Fundamentals of GIS Lab II 1.0 credits. This course covers the processes of creating spatial data, and entering attribute data and continues presentation of spatial analysis techniques. Grid and raster operations, as well as network applications using Arcview's Spatial Analysis, Network Analyst and ArcGIS. *Prerequisite: None. Corequisite: RGE 341.*

RGE 351 Geospatial Data Models 3.0 credits. This course covers the principles of database systems, object-oriented approaches to spatial entity modeling and data modeling. It provides the students with a working knowledge of entity-relationship data modeling. The course must also cover the evolution of the geo-relational data model and its subsequent evolution to the object-oriented data models of ArcGIS. *Prerequisite: RGE 241.*

RGE 358 GIS in Critical Thinking 3.0 credits. This course focuses on applying critical thinking skills to geography and using Geographic Information Systems (GIS) for spatial data interpretation. GIS enables digital storage and processing of spatial data, which permits more people to create new maps with new perspectives easily and rapidly. Each map carries its creator's perspective and a specific objective. *Prerequisite: None.*

RGE 410 GIS Applications in Social Science 3.0 credits. This course covers some typical GIS uses in urban planning and management applications. This course will emphasize problem definition, data identification, appropriate methodology, interpretation of results, and final problem write-up. **(Writing Intensive General Education Course).**

RGE 411 Environ Conser 3.0 credits. Survey of human impact on the environment throughout the world. Particular emphasis upon population pressure, air and water pollution, land use changes, and destruction of soil and natural vegetation. *Prerequisite: None.*

RGE 413 Urban Geography 3.0 credits. An introduction to urban geography. The city as a geographic landscape. The land use pattern and spatial interaction of cities on a local, regional, and world basis. A great deal of field work and individual research is involved. *Prerequisite: None.*

RGE 415 Political Geography 3.0 credits. The development and trends of present world political patterns. Spatial factors affecting the organization of the various political units of the

world and patterns of political development. *Prerequisite: None.* **(Global Studies and Writing Intensive General Education Course).**

RGE 416 Cartography 3.0 credits. The compilation, understanding, and use of maps, and to a lesser degree, aerial photographs. This course develops the ability to complete maps and diagrams for the illustration of place location, aerial distribution, and statistical data. *Prerequisite: None.* **(Intensive General Education Course).**

RGE 461 GIS Application Development 3.0 credits. Students will use this course to integrate and apply material learned throughout the GIScience curriculum. Students need to work independently or in small teams to define a research problem and conduct geographic analysis. Results will be presented to the class. *Prerequisite: RGE 410.*

RGE 471 GIS Practicum 3.0 credits. The practicum is an internship offering students an opportunity to gain practical experience with a local business or government agency actively using GIS in daily operations. The student will be involved in functional maintenance, creation and/or operation of the business/agency GIS. *Prerequisite: RGE 461.*

RHI 101 History of Civilization I 3.0 credits. The social, political and cultural history of civilizations from their earliest beginning up to the sixteenth century. A world-oriented course covering Africa and Asian developments as well as those of the Western World. *Prerequisite: None.* **(Social Science General Education Course).**

RHI 102 History of Civilization II 3.0 credits. World History from the sixteenth century to the twentieth century; the Colombian Exchange, Absolutism, the Democratic and Industrial Revolutions, and Imperialism. *Prerequisite: None.* **(Social Science General Education Course).**

RHI 201 History of Africa I 3.0 credits. The myths regarding African history, the rise of early man, the ancient civilization, and the early kingdoms. The coming of Moslems and the Europeans, and the impact of both on Africa. *Prerequisite: None.* **(Social Science General Education Course).**

RHI 202 History of Africa II 3.0 credits. A continuation of RHI 201 on a regional approach. The roles and myths of external influence, the slave trade, scramble for Africa, 19th Century African empires, Islam and Christianity, colonialism, and nationalism in the development of African history. *Prerequisite: None.* **(Social Science General Education Course).**

RHI 203 History of World – 20th Century 3.0 credits. The emergence of modern states and the development of science and technology with their concomitant social problems. International rivalries and colonial expansion; economic, political and social revolutions, and the implementation of international cooperation in relationship to current world problems. *Prerequisite: None.* **(Social Science General Education Course).**

RHI 211 History of US and PA I 3.0 credits. The United states, from the Old World background, to the Civil War with emphasis on national development. The problems of achieving independence, organizing the federal system of government, abolishing slavery, expanding the economy and territory of the national, and settling sectional disputes which focus on the issue of states' rights. *Prerequisite: None.* **(Social Science General Education Course).**

RHI 212 History of US and PA II 3.0 credits. The history of the United States, from Reconstruction, to the present. The impact of the Industrial Revolution upon American society; the advancement of the United States to the status of a world power, and the role of the nation in World Wars I and II and the postwar world. *Prerequisite: None.* **(Social Science General Education Course).**

RHI 216 African American History I 3.0 credits. A survey of the African background, including the emergency of man in Africa, and the rise of the world's first cultures and civilizations; African exploration of the New World; the rise of the Atlantic slave trade and the decline of African culture; the impact of the slave trade on the life of the New World with particular emphasis on the U.S.; the myths surrounding slavery, slave revolts, the Abolition Movement, the coming of the Civil War, and the Reconstruction experiment. *Prerequisite: None.* **(African American and Social Science General Education Course).**

RHI 217 African American History II 3.0 credits. A continuation of RHI 216. The fall of Reconstruction, the institution of Jim Crow and the Twentieth Century beginnings of the struggle for equality of African Americans. Booker T. Washington, W.E.B. DuBois, Marcus Garvey. A Phillip Randolph; the Harlem Renaissance, and the impact of the participation of African Americans in the Spanish American War and World Wars I and II. *Prerequisite: None.* **(Social Science General Education Course).**

RHI 302 Civil War and Reconstruction 3.0 credits. Sectional rivalry as a constant theme in the early national and antebellum periods of United States history; social and psychological conditions that created political crises in the Civil War and Reconstruction periods. *Prerequisite: Sophomore standing.*

RHI 490 Special Topics in History 3.0 credits. Studies in selected historical topics or problems. *Prerequisite: None.*

ROC 101 Military Science I 1.0 credit. This introductory course is a study of organization and history of ROTC, the role of the Army in national security, and ethics. *Prerequisite: None.*

ROC 102 M S 102 1.0 credit. Introduction to ROTC II continues the study of the organization and history of ROTC and the evolution of military leadership. Students are introduced to land navigation and a continued study of the organization and role of the Army. *Prerequisite: None.*

ROC 201 Military Science 201 1.0 credit. Practical approach to methods and techniques of instruction. Includes principles and characteristics of instruction, instruction preparation, speech techniques, use of instructional aids, and instruction evaluation through student presentations. *Prerequisite: ROC101 or ROC102 or approval of the professor of Military Science.*

ROC 202 Mil Science 202 1.0 credit. Practical approach to methods and techniques of instruction. Includes principles and characteristics of instruction, instruction preparation, speech techniques, use of instructional aids, and instruction evaluation through student presentations. *Prerequisites: None.*

ROC 301 Military Science 301 6.0 credits. Advanced Military Leadership provides a study of leadership and management principles and their application in the military environment. Advanced land navigation techniques and small unit on operation in a combat environment is stressed. The course provides a practical approach to methods and techniques of

communication and instruction. This course must be taken at Widener or Villanova University. *Prerequisite: Army ROTC advanced standing or approval of the professor of Military Science.*

ROC 302 Military Science 302 6.0 credits. A continuation of the study of Advanced Military Leadership. This course must be taken at Widener or Villanova University. *Prerequisite: Army ROTC advanced standing or approval of the professor of Military Science.*

ROC 401 Military Science 401 4.0 credits. A study of leadership and management, emphasizing application in military operations, an analysis of staff organization and procedures, resource allocation, and the theory and application of military law. Examination of the role of the military structure in the execution of national security policy is offered. Case study investigations of the duties, obligations and responsibilities of a commissioned officer are explored. This course must be taken at Widener or Villanova University. *Prerequisite: Army ROTC advanced course standing or approval of the professor of Military Science.*

ROC402 Military Science 402 4.0 credits. A continued study of leadership and management, emphasizing application in military operations, an analysis of staff organization and procedures, resource allocation, and the theory and application of military law. Examination of the role of the military structure in the execution of national security policy is offered. Case study investigations of the duties, obligations and responsibilities of a commissioned officer are explored. This course must be taken at Widener or Villanova University. *Prerequisite: Army ROTC advanced course standing or approval of the professor of Military Science.*

RPO 101 Intro to Political Science 3.0 credits. A survey of basic concepts and current trends in political science and its sub-fields of American politics, public administration, comparative government, international relations, and political theory OR Distance Learning version of RPO 101 to be offered as an "On-Line" course in which more than 80% of the instruction will be completed outside of the classroom. *Prerequisite: None. (Social Science General Education Course).*

RPO 102 Intro to World Politics 3.0 credits. This is an introductory course about world politics. The central purposes of the course are two-fold. First, the course is designed to acquaint students with the major trends, relationships, events, and dilemmas of contemporary world politics, which will have a significant impact on their lives and future. Secondly, the course will introduce the theories of international politics that have been developed by political scientists and other analysts of world politics. *Prerequisite: None. (Global Studies and Social Science General Education Course).*

RPO 111 US Government 3.0 credits. Designed to give a broad, general knowledge of the workings of the American national government – the legislative, executive, and judicial branches of government. Stress is placed on the application of government in our daily lives as that concept relates to the theory of government. *Prerequisite: None. (Social Science General Education Course).*

RPO 211 State and Local 3.0 credits. The functional operation of state and local governments with an analysis of their powers to tax and finance; enforce laws; regulate commerce and business, and promote the social and economic welfare. *Prerequisite: None. (Social Science General Education Course).*

RPO 212 African Politics 3.0 credits. African politics from the periods of European colonization to independence and post independence. The development of political parties and sense of nationalism; the religion, economy, culture, and personalities that help to make up the entire spectrum of politics in the emerging nations of Africa. *Prerequisite: None.* **(Global Studies and Social Science General Education Course).**

RPO 311 International Relations 3.0 credits. The current world situation determines the character of the political, diplomatic, and strategic emphasis of this course with respect to national states. The national interests of the dominant states and the aspirations of emerging peoples will be the major concern of the course. *Prerequisite: None.* **(Writing Intensive General Education Course).**

RPO 312 Class Med Theory 3.0 credits. A critical study of Greek, Roman, and Medieval political thought from Plato and Aristotle through early modern times. *Prerequisite: None.*

RPO 313 Modern Political Theory 3.0 credits. The liberal and authoritarian political philosophies in their Western World in the two centuries since the American and French Revolution. *Prerequisite: None.*

RPO 314 American Political Theory 3.0 credits. The two principal components of American political thought: the individualistic, decentralized component exemplified by Jefferson, Taney, Cleveland, and Eisenhower, and the nationalistic, centralist thread exemplified by Hamilton, Marshall, Lincoln and the two Roosevelts. *Prerequisite: None.*

RPO 315 Political Parties 3.0 credits The political party as a force in activating government, whether in the multiple party states, the two party states, or a single party state. *Prerequisite: None.*

RPO 316 American Constitutional Law 3.0 credits. The role of the Supreme Court in the American political system viewed both historically and through analysis of leading cases. The nature and exercise of judicial review, federalism, a separation of powers. *Prerequisite: None.*

RPO 410 Trans-national Relations 3.0 credits. An interdisciplinary study of interactions, organizations, and issues transcending national boundaries. Factors affecting the development of supra-state relations. *Prerequisite: None.*

RPO 411 Civil Liberties and Law 3.0 credits. Civil liberties: an analysis of the leading American Constitutional decisions relating to economic rights, discrimination against minorities, political equality, and the rights of the accused. *Prerequisite: None.*

RPO 412 Politics in Black American 3.0 credits. African-American participation in American politics. The nature of Black participation in policy making, the role of Black interest groups, the nature and place of Black leadership, and voting in the North, the South, and the Sub-community. *Prerequisite: None.* **(African American General Education Course).**

RPO 413 Comparative Government 3.0 credits. Systems of government in Europe: the United Kingdom, France, West Germany, and the former USSR. *Prerequisite: None.*

RPO 414 International Law 3.0 credits. How the rule of law applies to states in the pursuit of their ethnic, economic, political, strategic, technological, and social aspirations. *Prerequisite:* RPO 102.

RPO 415 American Presidency 3.0 credits. The development of the power, the influence, and the limitations of the American chief executive. Analysis of the office includes the selection of candidates, the role of the third party, and campaign financing. *Prerequisite:* None.

RPO 416 Current Political Issues 3.0 credits. The major problems facing nations in their political, economical, and cultural relations. A list of topics is announced and agreed upon at the beginning of each term. *Prerequisite:* None. **(Writing Intensive General Education Course).**

RPO 418 Public Administration I 3.0 credits. This course is an introduction to basic elements of Public Administration, such as financial administration, operations analysis, personnel administration, and methods of achieving administrative objectives. *Prerequisite:* RPO111.

RPO 450 Special Topics in Political Science 3.0 credits. This course will be offered periodically to cover current events, new ideas and theories, and/or topics in Political Science that are not covered in other courses. Or it may be based on a special interest area of a faculty member that is not adequately covered in other Political Science offerings. *Prerequisite:* RPO 101.

RPO 470 Political Science Seminar 3.0 credits. Required of all political science majors in their senior year. A common core of readings with oral and written reports by each student. Each student must submit, with the counsel of his or her departmental advisor, a paper involving original research as evidence of having mastered the requisites of a political science major. *Prerequisite:* None. **(Writing Intensive General Education Course).**

RPS 211 Introduction to Psychology 3.0 credits. Course presents a capsule view of the bio-social influences on human behavior as revealed through psychological investigations. *Prerequisite:* to all psychology courses. *Prerequisite:* None. **(Social Science General Education Course).**

RPS 212 Educational Psychology 3.0 credits. Nature of the learner and the learning process with special reference to learning in a school setting. A critical look at the procedures of appraising pupil progress and instructional techniques teachers use in the classroom. *Prerequisite:* RPS 211. **(Social Science General Education Course).**

RPS 217 Social Psychology 3.0 credits. Individual conduct in a social context. Aspects of human personality which are modified by society in the formation and motivation of individual conduct and conviction. The method of social inquiry and experimentation demonstration. *Prerequisite:* RPS 211. **(Social Science General Education Course).**

RPS 221 Advanced Psychology 3.0 credits. An extension of RPS 211 for students who plan to major in psychology, or have a science-teaching, scientific, or liberal arts orientation. A more in-depth study of the areas of psychology. *Prerequisite:* RPS 211. **(Social Science General Education Course).**

RPS 231 Stat Psych & Ed 3.0 credits. The use of statistics as a tool for scientific investigation in social and behavioral sciences with special emphasis on descriptive and relational techniques. *Prerequisite: RPS 211.*

RPS 232 Stat Psych & Ed II 3.0 credits. This course deals with inferential statistics, i.e. probability, sampling, "t" tests, hypothesis testing and analysis of variance. *Prerequisites: RPS 231 or RSO 351 or MAT 205.*

RPS 300 Theories of Learning 3.0 credits. Individual conduct in a social context. Aspects of human personality which are modified by society in the formation and motivation of individual conduct and conviction. The method of social inquiry and experimentation demonstrated. *Prerequisite: RPS 211. (Social Science General Education Course).*

RPS 308 Human Sexual Function and Dysfunction 3.0 credits. Sexual anatomy, physiology, and behavior of both sexes, from conception through adulthood, are explored. The course will be taught by references to respected authorities in each three basic categories: biophysical, psychemotional, and sociocultural. *Prerequisite: RPS 211. (Social Science General Education Course).*

RPS 313 Psychology of Adolescence 3.0 credits. The physical, social, mental, and emotional problems of adolescence, their causes, and their effect upon the adolescent's development. Object bases for understanding and guidance of youth in educational, social and personal growth. *Prerequisite: RPS 211.*

RPS 314 Abnormal Psychology 3.0 credits. A systematic study of nature, etiologies, syndromes, therapies, and prognosis of mental deficiency, psychosomatic disorders, criminal and delinquent behavior, psychoneuroses, and psychoses. Case structures illustrating patterns of deviant behavior will be utilized. *Prerequisite: RPS 211. (Social Science General Education Course).*

RPS 316 Human Growth and Development 3.0 credits. Developmental process from prenatal period through senescence. Emphasis on behavioral changes taking place at various stages of development as functions of heredity and environment. *Prerequisite: RPS 211. (Social Science General Education Course).*

RPS 318 Child Psychology 3.0 credits. The physical, social, mental, and emotional aspects of child growth with emphasis on the behavior pattern at various levels of development. Verification of general principles of child development is encouraged through direct observation of young children. *Prerequisite: RPS 211. (Social Science General Education Course).*

RPS 319 Personality 3.0 credits. How psychologists theorize about what makes us the unique people we are. Psychoanalytic, humanistic, and cognitive behavioral theories will be examined. Issues in the development of personality will be explored. *Prerequisite: RPS 211. (Social Science and Writing Intensive General Education Course).*

RPS 320 Psychology of Small Group Behavior 3.0 credits. An introduction to the theory and practice of small group structure and process, with consideration of relevant research, Cohesiveness, conformity, power, inter-group and intro-group conflict and cooperation are

studies as aspects of group structure and process. Students observe and participate in small group processes. *Prerequisite: RPS 211. (Social Science General Education Course).*

RPS 325 Psychology of the Black Experience 3.0 credits. The philosophical orientations and sociocultural concerns of black Americans from several psychological perspectives. Cognitive, affective, and psychomotor styles of black people. Research techniques to study this behavior, a review of the available research on black experiences, and a study of changes in the dynamics of relationships of black people in American society. *Prerequisite: RPS 211. (African American and Social Science General Education Course).*

RPS 330 Industrial Psychology 3.0 credits. Principles, concepts, methods, and results in advertising and selling. Job and worker analysis, selection training, monotony fatigue, worker adjustment, accident prevention, morale, and labor-management problems. *Prerequisite: RPS 211. (Social Science General Education Course).*

RPS 331 Statistics of Psychology and Education 3.0 credits. The use of statistics as a tool for scientific investigation in social and behavioral sciences with special emphasis on descriptive and relational techniques. *Prerequisite: RPS 211. (Social Science General Education Course).*

RPS 332 Statistics of Psychology and Education II 3.0 credits. This course deals with inferential statistics, i.e. probability, sampling, "t" tests, hypothesis testing, and analysis of variance. *Prerequisite: RPS 231 or RSO 351 or MAT 205.*

RPS 405 Physiological Psychology 3.0 credits. Physiological mechanism underlying behavior; neuro-anatomy, sensory, muscular, and glandular structures and functions in relation to learning, perception, motivation, and emotion. *Prerequisite: RPS211.*

RPS 408 Sensation Perception 3.0 credits. The physiological, social, and motivational factors involved in the sensory and perceptual processes. *Prerequisite: RPS 211.*

RPS 409 Introduction to Psychological Testing 3.0 credits. The theory and practice of testing. Emphasis on the nature, use, limitations of typical tests of intelligence, achievement, special abilities, aptitudes, personality, and interest. It is strongly recommended to take a statistics course prior to taking this course. *Prerequisite: RPS 211.*

RPS 410 Experimental Psychology (I) 3.0 credits. Scientific methodology as applied to experimental psychology. Basic procedure, terminology, and designs necessary in varying out psychological experiments. *Prerequisites; RPS 211. (Intensive General Education Course).*

RPS 411 Advanced Experimental Psychology (I) 3.0 credits. An extension of RPS 410. Students design and conduct independent research projects using animals. Emphasis on the evaluation and thus the appreciation of psychological experimentation. It is strongly suggested that RPS 231 and RPS 232 be taken prior to enrolling in this course. *Prerequisites: RPS 211, RPS 410. (Intensive General Education Course).*

RPS 420 Clinical Psychology 3.0 credits. Clinical psychology, its nature and types of problems. Diagnostic instruments, methods, and techniques; individual and group therapeutic theories, methods, and techniques. Professional roles and opportunities for clinical psychologists. *Prerequisite: RPS 211. (Writing Intensive General Education Course).*

RPS 445 Senior Seminar in Psychology 3.0 credits. Students are encouraged to develop a psychological problem and attempt its solution through utilization of scientific methods of problem solving. This course has as its primary objective the integration of theoretical concepts from a variety of fields of psychology. The student will be required to draw upon the content of various courses in psychology in order to develop new analyses, theories or optional solutions to significant issues within the field of psychology. *Prerequisites: RPS 211, RPS 231, RPS 232, RPS 410.* **(Writing Intensive General Education Course).**

RPS 460 Special Topics 3.0 credits. Studies in selected psychological topics. May cover recent developments in a particular area of psychology. Course content varies by semester, and will be announced in the proceeding semester. *Prerequisite: RPS 211.*

RSO 201 Introduction to Sociology 3.0 credits. Prerequisite for all other sociology courses. Major theories, concepts, and methodology of the field. To help students live intelligently in and cope with society and to get a balanced perspective on the problems of order and change. *Prerequisite: None.* **(Social Science General Education Course).**

RSO 202 Introduction to Social and Cultural Anthropology 3.0 credits. History and contemporary practice of social and cultural anthropology, the ethnographic method, cross-cultural comparisons of customs and values, and theories of culture. The course provides a brief introduction to the evolutionary, functionalist, personality-and-culture, and cognitive approaches taken by anthropologists in their studies. *Prerequisite: RSO 201.* **(Social Science General Education Course).**

RSO 203 Introduction to Social Welfare 3.0 credits. Prerequisite: Completion of 30 hours. An analysis of social welfare as an institution and social work as a profession, with emphasis placed upon their outgrowth from social problems and unmet basic human needs within society. Structured observation will provide an opportunity for students to explore a diversity of agency settings and to distinguish various social work tasks, roles, and levels of intervention. *Prerequisite: RSO 201.*

RSO 204 Introduction to Criminology 3.0 credits. Basic course in the study of criminal behavior. Introduces theories of crime and corrections. Analysis of criminal causation and the differential impact of crime and corrections on various segments of society. *Prerequisite: RSO 201.* **(Social Science General Education Course).**

RSO 219 Introduction to Law and Society 3.0 credits. Examination of the contemporary significance of law in society. Origins of legal rights of Americans, including trial by jury, the First and Fifth Amendments, equal treatment under the law for minorities and for women. Special emphasis on the relationship of law to such contemporary social problems as censorship, the environment, domestic relations, product liability and consumer protection, the right to privacy, freedom of information, poverty law, and urban housing. *Prerequisite: RSO 201.* **(Social Science General Education Course).**

RSO 230 Social Problems 3.0 credits. Application of the principles of sociology to an analysis of current social problems such as war, poverty, crime, racism, sexism, etc. Order and conflict theories of social problems and their suggested solutions. *Prerequisite: RSO 201.* **(Social Science General Education Course).**

RSO 231 Urban and Suburban Social Trends 3.0 credits. A sociological analysis of the modern metropolitan area, its patterns of organization and institutions, and the forces that produce distinctive urban and suburban cultures. *Prerequisite: RSO 201. (Social Science General Education Course).*

RSO 300 Community Involvement 3 or 6 credits. Practicum. Agency placement required. Structured field experience involving work within a community organization or social work agency. Students will be directly responsible to the organization or agency under the general supervision of the instructor. *Prerequisite: RSO 201.*

RSO 301 Social Stratification 3.0 credits. Analysis of class, status, and power. Topics include: order versus conflict theories of stratification; social mobility, inequalities of race, class, and gender, and political behavior. *Prerequisite: RSO 201. (Global Studies and Writing Intensive General Education Course).*

RSO 303 Early Social Thought 3.0 credits. Pioneers in the field, their first conceptualization of sociology as a science, and the manner in which they laid the groundwork for classical theory. Works of such men as Comte, Durkheim, Spencer, Marx, and Weber. *Prerequisite: RSO 201. (Writing Intensive General Education Course).*

RSO 304 Intergroup Ethnic Relations 3.0 credits. Analysis of majority-minority group relations with special reference to recent changes in American society. Intergroup harmony and conflict. Group and individual responses to racial and ethnic discrimination in employment, housing, education, health, justice, etc. *Prerequisite: RSO 201.*

RSO 310 Social Organizational Dynamics 3.0 credits. The nature and forces of organized relationships. Special emphasis upon theoretical and empirical approaches to the study of community, industrial, and political organizations. Social change in modern society and its relationship to social development. *Prerequisite: RSO 201.*

RSO 312 Sociology of Marriage and Family 3.0 credits. Cross cultural analysis of the family as a social and cultural institution. Selection, marital harmony, kinship terms, descent, family ceremonials, child care, and dissolution of the marriage relationship. Contemporary trends. *Prerequisite: RSO 201.*

RSO 315 Sociology of Poverty 3.0 credits. The dynamics of poverty; social, psychological, and cultural causes of poverty; effects of poverty on personality; anti-poverty programs; and the problems of absolute poverty and relative poverty in today's society. *Prerequisite: RSO 201.*

RSO 325 Basic Methods of Social Research 3.0 credits. Introduction to non-statistical research procedures, research design, and methods of data collection, including the interview and questionnaire, and sampling evaluation of research studies. *Prerequisite: RSO 201.*

RSO 326 Social Statistics 3.0 credits. Statistical methods and their applicability to social data. The collection, assembly, and tabulation of findings; measures of central tendency and dispersion; elementary tests of significance and simple correlations; evaluation of statistical data. *Prerequisite: RSO 201.*

RSO 350 Cult Language and Socty 3.0 credits. The general theory of the “interaction” of language with society, behavior, and culture with special references to descriptive and historical linguistics; the relevance of linguistics to cultural studies, and sociolinguistics. *Prerequisite: RSO 201. (Social Science General Education Course).*

RSO 351 Social Statistics 3.0 credits. Statistical methods and their applicability to social data. The collection, assembly, and tabulation of findings; measures of central tendency and dispersion; elementary tests of significance and simple correlation's; evaluation of statistical data. *Prerequisite: RSO 201.*

RSO 366 Peoples and Cultures of Africa 3.0 credits. The people of Africa, their ethnic and trial divisions, and their cultural behavior. *Prerequisite: RSO 201. (Social Science General Education Course).*

RSO 370 Crime and Social Order 3.0 credits. History of diverse schools of thought on the causes of crime and contemporary theories of crime. Deviance theories and their social implications; law as an instrument of power and social control; cross cultural studies of crime; the relationship between economics and political institutions and crime; and crime and social stratification. *Prerequisite: RSO 201.*

RSO 371 Juvenile Offenders 3.0 credits. Analysis, description, and case studies of legal rights, treatment, and rehabilitation of juveniles who have been adjudicated “delinquent”. A thorough examination of approaches to dealing with juvenile offenders and the processes and procedures in juvenile courts. (May be taken for four semester hours of credit when laboratory sessions are available at Glen Mills School or elsewhere). *Prerequisite: RSO 201.*

RSO 372 Offender and Social Policy 3.0 credits. Changing conceptions of how to deal with offenders including a history of prisons and prison reform. Analysis of conflicting goals in public policy, i.e. treatment and rehabilitation vs. punishment and deterrence. The prison as a total institution; racial discrimination in the administration of justice; treatment of high vs. low status offenders; probation, parole, halfway houses, etc. *Prerequisite: RSO 201.*

RSO 373 Social Deviance 3.0 credits. Analytical study of deviance and social control. Survey of theories relating to deviance labeling, functionalist, symbolic interaction, differential association, and others. Importance of concept of deviance in regulating human behavior in organized society; effects of stigma on interaction processes. *Prerequisite: RSO 201.*

RSO 374 Non-Institutional Treatment Offenders 3.0 credits. Critical examination and analysis of trends in the treatment of criminal offenders in the community with major focus on community treatment centers, halfway houses, furlough programs, drug treatment centers, and community responsibility in the treatment process. *Prerequisite: RSO 201.*

RSO 380 Dynamics of the Social Welfare System 3.0 credits. Principles, practices, and procedures in social work, relating and integrating behavioral science knowledge to the individual's life situation through intro-familial, sociocultural, and institutional interactions. Identification of social problems and human needs through case studies. Examination of the process involving both individual change and social action directed at improving society's ability to meet current needs. A structured field experience is required with this course. *Prerequisite: RSO 201. Corequisite: RSO 300.*

RSO 381 Social Institution Management 3.0 credits. Emphasis is on extending skills and effective communication in developing a model for social work practice derived from the function and purpose of the profession. Focus concepts of systems, techniques, and social networks with application to analyzing client systems, settings, situations, and resources. A general systems approach will be utilized in organizing the elements of the model. A structure field experience is required. *Prerequisite: RSO 201. Corequisite: RSO 490.*

RSO 384 Family and Crisis Intervention 3.0 credits. Analysis of the structure of family role performance, socialization, and social problems emerging from or associated with family matrix. Experience in a leader-led group utilizing a variety of encounter and sensitivity techniques. Emphasis on understanding humanistic values; the multi-method approach to problem solving and the professional role in problem solving. *Prerequisite: RSO 201.*

RSO 386 Society, Legislation and Politics 3.0 credits. Welfare-related legislation in the U.S. and other countries. Implementing the welfare state through legislation at the national, regional, and local levels. History of welfare legislation; current issues in legislation; the limits of reform through law. *Prerequisite: RSO 201.*

RSO 404 Social Movements and Change 3.0 credits. Sociological analysis of movements for social change. Alternative approaches and strategies for achieving planned societal change. Comparative analysis of alternative ideologies and strategies of social change. *Prerequisite: RSO 201.*

RSO 409 Urbanization and Crime Behavior 3.0 credits. A critical examination of the modernization and urbanization processes and their relations to criminal conduct. Differential effects of these processes on ethnic and cultural groups in today's urban American society. The dynamic nature of both processes and their effect on diverse populations in the community. *Prerequisite: RSO 201.*

RSO 410 Analysis of Ethnic Minority Offender 3.0 credits. Study and evaluation of the social, psychological, and cultural aspects of the ethnic minority offender. Special emphasis given to crime prevention; community values and morals; law enforcement, adjudication, and corrections relationships. *Prerequisite: RSO 201.*

RSO 416 Analysis of Ethnic Minority Offender 3.0 credits. Study and evaluation of the social, psychological, and cultural aspects of the ethnic minority offender. Special emphasis given to crime prevention; community values and morals; law enforcement, adjudication, and corrections relationships. *Prerequisite: RSO 201.*

RSO 472 Seminar Criminal Justice 3.0 credits. Advanced studies in causes of various types of crime. Crimes against the person, crimes against public order, including political crimes and victimless crimes, and the crimes against property. Relationships between social and economic structure and patterns of crime in modern, urban, industrial society. *Prerequisite: RSO 201.*

RSO 475 Seminar Sociology 3.0 credits. Advanced studies of selected topics in sociology, including theoretical and methodological issues. Especially for students planning to continue with graduate work in the field. *Prerequisite: RSO 201.*

RSO 490 Internship I 3.0 credits. Designed to evaluate the job performance and proficiency of social relations students in an actual job situation (paid or unpaid). The evaluation is carried out by an instructor in social relations in conjunction with personnel at the internship agency. Work may be in social agencies, prisons, rehabilitation centers, drug abuse centers, community action organizations, etc. The course may also be used to provide student credit for participation in ongoing research projects sponsored by the instructor, depending on the interest of the student and facilities available. *Prerequisite: permission of instructor, RSO 201.*

RSO 491 Internship II 3.0 credits. Designed to evaluate the job performance and proficiency of social relations students in an actual job situation (paid or unpaid). The evaluation is carried out by an instructor in social relations in conjunction with personnel at the internship agency. Work may be in social agencies, prisons, rehabilitation centers, drug abuse centers, community action organizations, etc. The course may also be used to provide student credit for participation in ongoing research projects sponsored by the instructor, depending on the interest of the student and facilities available. *Prerequisite: permission of instructor, RSO 201.*

SCH 101 Introductory Chemistry 3.0 credits. Physical phenomena, energy and energy changes, periodicity, chemical compounds and behaviors, mole and mole concepts, chemical reactions and reaction types, light and light properties, bonding, and bonding types, molecular geometry, and gases. *Prerequisite: One year of high school chemistry. (Natural Science General Education Course).*

SCH 111 General Chemistry I 4.0 credits. The basic principles of chemistry, including modern atomic structure and bonding, chemical equations, solubility, and descriptive inorganic chemistry. *Prerequisite: None. (Natural Science General Education Course).*

SCH 112 General Chemistry II 4.0 credits. A continuation of SCH 111. Solutions, ionic equilibria, nuclear chemistry, electro-chemistry, and descriptive chemistry not considered in Inorganic I are briefly discussed. *Prerequisite: SCH 111.*

SCH 200 Environmental Science 3.0 credits. Environmental issues relating to the chemical properties of air, water, and soil. Introduction to the application of chemical principles to pollution processes. *Prerequisite: None. (Natural Science General Education Course).*

SCH 201 Analytical Chemistry I 4.0 credits. The fundamental theory underlying modern analytical chemistry and laboratory practice in quantitative and qualitative analysis of the organic and inorganic compounds. Six hours each week the separation and identification of the common metallic and non-metallic ions using semi-micro techniques. Six hours each week. *Prerequisite: SCH 111, SCH 112, SCH 211, SPY 211, SPY 212.*

SCH 202 Analytical Chemistry II 4.0 credits. A study of fundamental principles underlying modern chemical instrumentation, separation and spectral interpretation with laboratory practice in quantitative and qualitative trace analysis of organic and inorganic compounds by utilizing modern analytical instruments. *Prerequisite: SCH 201.*

SCH 211 Organic Chemistry I 4.0 credits. Organic chemical formulas, bonding in organic compounds, nomenclature, resonance and tautomerism, stereochemistry, spectroscopy of organic compounds, organic acids and bases of carbon, oxygen, and nitrogen. *Prerequisite: SCH 111, SCH 112.*

SCH 212 Organic Chemistry II 4.0 credits. Classes of organic reactions; functional group reactions as they fit these classes; substitution at saturated carbon and carbonyl; addition to multiple bonds; elimination reactions; aromatic substitution; molecular rearrangements; oxidation and reduction. *Prerequisites: SCH 211, SCH 212.*

SCH 340 Biochemistry I 3.0 credits. This course is the first part of the Biochemistry course series: Biochem I, II, and Lab. Students will be introduced to the detailed information of structures and functions of different classes of biomolecules, including carbohydrates, proteins, lipids and nucleic acids. Students will also focus on learning the generally applied biochemical procedures on characterizing and purifying biomolecules, as well as diversified functions of different classes of proteins. *Prerequisites: SCH 211, SCH 212.*

SCH 341 Biochemistry II 3.0 credits. This course is the second part of the Biochemistry series: Biochem I, II and Lab. Students will be introduced to diversified functions of different classes of proteins, kinetic analysis of enzyme activities, regulatory strategies of enzymatic activities, catalytic mechanisms of some well-characterized enzymes, the major metabolic pathways of energy exchange in cells, molecular pathways of signal transduction through G proteins, and diversified structural and functional features of immunoglobulins. *Prerequisite: SCH 340.*

SCH 342 Biochemistry Lab 2.0 credits. The course explores the basic laboratory techniques commonly utilized in practicing experimental biochemistry. Attention will be given on both the theory and practice of experimental applications. *Prerequisite: SCH 341.*

SCH 411 Physical Chemistry I 4.0 credits. The laws of thermodynamics presented and applied to gases, solutions, systems in chemical or phase equilibrium and electrochemistry. *Prerequisites: SPY 211, SPY 212.*

SCH 412 Physical Chemistry II 4.0 credits. The theory of quantum chemistry and its application to atomic and molecular orbital, chemical bonding and structure. Chemical kinetics are also introduced. *Prerequisite: MAT160.*

SCH 420 Seminar in Chemistry 1.0 credits. A survey of chemical literature. Trends in modern chemical research and investigation. Students are required to prepare and report on assigned topics. *Prerequisite: None.*

SCH 430 Chemistry Instrumentation 3.0 credits. Theories and applications of instrumental methods of ultra-violet, infrared and visible spectroscopy, nuclear magnetic resonance spectroscopy, polarimetry, chromatography, potentiometric titrimetry, polarography, and related physical-chemical methods are introduced. Interpretation of data and principles of operation are emphasized. *Prerequisite: SCH 112.*

SCH 445 Inorganic Chemistry 4.0 credits. Metals; their behavior and roles in the biological system; Acid-Base Concepts; hard and soft, Atomic Structure; Ionic Solids; Chemical Bonding; Molecular Structure; Symmetry and Solution Chemistry. *Prerequisites: SCH 111, SCH 112, MAT 160, MAT 170, MAT 260, SPY 211, SPY 212, SCH 411, SCH 412.*

SCH 499 Independent Study in Chemistry 4.0 credits. This course provides students with research experience. Students will conduct research on a project designed specifically for them

and will be supervised by a faculty member. A paper and presentation of experimental results is required. *Prerequisite: None.*

SES 200 Astronomy 3.0 credits. Modern theories of the origin and structure for the universe are detailed. A major focus on the origin and components of the solar system. Modern instruments and new techniques for exploring space and celestial objects are examined. *Prerequisite: None.* **(Natural Science General Education Course).**

SES 210 Meteorology 3.0 credits. Introduction to fundamental concepts in meteorology; air masses, air motion, winds, storms, effects of weather, clouds and cloud seeing, interpreting and making weather maps, and forecasting. Open to prospective elementary and secondary science teachers and liberal arts students. *Prerequisite: None.* **(Natural Science General Education Course).**

SES 545 Environ Sci Workshop 1.0 credits. This capstone course allows for in-depth discussions of current environmental issues. The discussions are designed to not only involve the scientific concerns of a particular issue but to also take into account the political, social and economic considerations which will impact final policy decisions. Participants will be required to write short 3-4 page overviews for at least 10 topics during the course. *Prerequisite: None.*

SLF 100 Biological Science 3.0 credits. This course is an overview of biological principles and recent biological advanced that impact society, such as genetic engineering, stem cell research, global warming, and bioterrorism. This course is designed so that individuals with limited science background can better understand and evaluate issues that influence their everyday lives. *Prerequisite: None.* **(Natural Science General Education Course).**

SLF 101 Astrobiology II 3.0 This course is the second part in the exploration in the field of study known as astrobiology. Students will explore diverse concepts in Chemistry, Physics, Biology, Earth and Space Science, and Engineering. Research experiences and long-term, independent experiments will enable students to be active participants in the real processes of Science research and discovery. Through a series of lectures, inquiry-based activities, and projects students will investigate the origin of life on earth and the search for life on other planets. **(Natural Science General Education Course).**

SLF 110 General Biology I 4.0 credits. An introduction to the scientific method, structure, and function of the cell, physiology of cell membranes, introduction to carbohydrate lipid, protein and nucleic acids; study of respiration and photosynthesis; and heredity and variation. *Prerequisite: None.* **(Natural Science General Education Course).**

SLF 125 General Biology II 4.0 credits. An in-depth study of evolution and taxonomy of organisms, description of monera and protista, anatomy and physiology of the organ systems of animals, especially vertebrates, anatomy, and physiology of higher plants, and ecological relationships between organisms. *Prerequisite: SLF 110.*

SLF 216 Plant Physiology 4.0 credits. A study of the characteristics and mechanisms of ion accumulation by plants; nutrition, behavior in soils and solutions, and nutrition requirements of plants. Water movement in soils and plants, and the environmental effects of soil-plant water relationships; plant responses to water deficit and methods of altering soil-plant water balance will be studied. Study of herbicidal, auxins, and hormones, and use of economic plants will be

covered. Photosynthesis, metabolic pathways, metabolism, germination, and dormancy will be included. *Prerequisites: SLF 110, SLF 125.*

SLF 224 Vascular Plants 4.0 credits. An introduction to vascular plants including the ecology, taxonomy, anatomy, and physiology of mosses, ferns and seed plants. *Prerequisites: SLF 110, SLF 125.*

SLF 240 Comparative Chordate Anatomy 4.0 credits. Investigates the evolutionary and embryonic causes of variations and similarities seen in Chordate Anatomical Systems. The Chordate Systems studies are: Skeletal, muscular, digestive, respiratory, excretory, reproductive, circulatory, nervous and endocrine. Patterns of ontogeny and phylogeny are uncovered to indicate the fundamental principles of biological and taxonomic relationships. *Prerequisites: SLF 110, SLF 125.*

SLF 250 Invertebrate Zoology 4.0 credits. A detailed study of the invertebrate animals. Anatomy, physiology, and phylogenetic relationships are emphasized. *Prerequisites: SLF 110, SLF 125.*

SLF 311 Microbiology 4.0 credits. A general microbiology course that covers topics of control of microbial growth, sterilization and disinfection, history of microbiology, viruses, food microbiology, industrial microbiology, immunology, genetic engineering, and microbes that cause human diseases. *Prerequisites: SLF 110, SLF 125.*

SLF 312 Genetics 4.0 credits. An introductory course dealing with the principles and mechanisms of inheritance in plants and animals. *Prerequisites: SLF 110, SLF 125.*

SLF 314 Microbio Majors 3.0 credits. The organisms responsible for disease, the body responses, and external methods used for combating infections, including methods of isolation and identification of pathogenic organisms is investigated. Effects of antigens on the organism and antibody production are studied along with intensive course work in Immunology. *Prerequisite: SLF 110, SLF 125.*

SLF 315 Vertebrate Histology 4.0 credits. A study of microscopic structure of tissues comprising the organ systems of animals including man is introduced to students. Cellular organization of organelle components are correlated with ultra structure micrographs. Course lectures are supported by an introduction to microscopic slide preparation and other histologic techniques. *Prerequisites: SLF 110, SLF 125.*

SLF 316 Vertebrate Embryology 4.0 credits. This course investigates the principles of development and cell differentiation in animals from the molecular, descriptive, and biochemical points of view. Emphasis is given to the embryonic development of the amphibian, the bird and mammals. The laboratory includes both experimental and descriptive development of embryos. *Prerequisites: SLF 110, SLF 125.*

SLF 317 General Cytology 4.0 credits. This course involves a detailed study of the fine structure of the cell and the various tissues throughout the animal body at the molecular levels. It also includes study of different types of cell such as prokaryotes and eukaryotes with emphasis on the functions of different cell compartments. *Prerequisites: SLF 110, SLF 125.*

SLF 320 Human Anatomy and Physiology I Major 4.0 credits. This course is the study of the structure and function of the human body. It includes basic human biochemistry, the study of cells and tissues, the integument, skeletal, muscular, nervous and endocrine systems. The purpose of this course is to provide students with basic concepts of human biology that will enable them to make better decisions concerning personal and community health. *Prerequisites: SLF 110, SLF 125.*

SLF 321 Human Anatomy and Physiology II Major 4.0 credits. This course is the study of the structure and function of the human body. It includes the study of the cardiovascular, respiratory, urinary, and reproductive systems. The purpose of this course is to provide students with basic concepts of human biology that will enable them to make better decisions concerning personal and community health. *Prerequisite: SLF 320.*

SLF 325 Human Nutrition 3.0 credits. This course is designed for students majoring in the sciences and considering careers in the pre-professional sciences, biomedical, and academic areas. This course serves as a primary step in understanding the interaction between the nutrients and health. This course is not designed to be an introduction to dietetics, but focuses more on the biological roles of nutrients. The course will place special emphasis on the application of nutrition principles in everyday life by exploring the health consequences of nutrition practices. *Prerequisite: SLF 110.*

SLF 331 Marine Biology 4.0 credits. This course serves as the foundation for more specialized courses in aquatic science and is designed to help improve the student's skills of observation, data collection, and analysis. The students will be presented with a basic understanding of marine biology as they investigate the uniqueness of the marine environment and the adaptations of life forms to an aquatic existence. *Prerequisites: SLF 110, SLF 125, SCH 111.*

SLF 332 Ichthyology 4.0 credits. This course presents the student with a basic understanding of fish and serves as the foundation for more specialized courses in fishery science. Course objectives are accomplished through the examination of the uniqueness of fish taxonomy and their physiological adaptations to an aquatic environment. *Prerequisites: SLF 110, SLF 125.*

SLF 333 Marine Plant Life 4.0 credits. An introduction to marine plants which includes their ecology and taxonomy. Emphasis will also be placed on the anatomical and physiological adaptations of these plants which allow them to successfully survive in both fresh and salt water. *Prerequisite: None.*

SLF 335 Introduction to Aquaculture 4.0 credits. This is an introductory course which will provide the student with an understanding of the basic principles of aquaculture and will include opportunities for the student to participate in the culture of aquatic organisms. The course will include segments based on chemistry, biology and genetics and will seek to integrate all of these disciplines. Also included will be discussions on marketing and seafood safety. This course will provide the basis for students to be involved in more detailed aquaculture coursework and research both here at the university and at other sites. *Prerequisite: None.*

SLF 412 Seminar in Biology 1.0 credit. A survey by the students of biological literature and its trends in modern biological research, including a research paper and an oral report on a given biological topic. *Prerequisite: Junior or senior status.*

SLF 418 Ecology 4.0 credits. The relationships among living organisms and between these organisms and their environments. (Graduate students taking this course for credit are required to do a special project in addition to above). *Prerequisites: SLF 110, SLF 125.*

SLF 419 General Physiology I 4.0 credits. This course presents physiological principles in accordance with the accepted and current body of physiological knowledge. Emphasis is placed on the functional mechanisms of the membrane, muscular nervous, and endocrine systems, and how they maintain homeostasis. *Prerequisites: SLF 110, SLF 125.*

SLF 420 General Physiology II 4.0 credits. This course presents physiological principles in accordance with the accepted and current body of physiological knowledge. Emphasis is placed on the functional mechanisms of the cardiovascular, respiratory, digestive, urinary, and reproductive systems, and how they maintain homeostasis. *Prerequisite: SLF 419.*

SLF 421 Parasitology 4.0 credits. A course designed to acquaint students with the protozoan, helminthic, and arthropod parasites important to man's welfare. The laboratory emphasizes the taxonomy and morphology of important parasites as well as important vectors. Pathological aspects of parasitic diseases will be emphasized. *Prerequisites: SLF 110, SLF 125.*

SLF 422 Molecular Biology 4.0 credits. A study of the molecular and macro-molecular basis of life. Discussion includes detailed studies of chromosomal structures and functions. DNA replication and recombinant DNA technology, processes of transcription and translation, mechanism and regulation of gene expression, highly integrated cellular signal transduction pathways, apoptosis, and oncogenesis. Hands-on experiences Lab sessions on fundamental techniques used in biology studies. *Prerequisites: SLF 110, SLF 125, SCH 340.*

SLF 430 Immunology 4.0 credits. The course integrates molecular, cellular, and biochemical events in the immune system response to foreign invasion. Studies involve innate and specific immune systems, cells and tissues involved in the immune system, immunoglobulin structure and function, genetic expression of antibodies, the nature of antigen-antibody interactions, mechanisms of B cell and T cell development, and activation, hypersensitivity, and autoimmunity. *Prerequisites: SLF 110, SLF 125, SCH 340.*

SLF 460 Independent Study in Biology 4.0 credits. Intensive study of a selected biological subject, including a scientific paper on the subject material. *Prerequisites: SLF 110, SLF 125, SLF 312, SCH 111, SCH 112, SCH 201, SCH 202.*

SLF 470 Research Methods 4.0 credits. This course will be designed to foster and support students' curiosity regarding the world in which they live and to give them the tools to explore and understand their world using scientific methods and principles. Students will be challenged to find science and technology in the news and to understand scientifically derived information. They will gain specific skills in finding information, synthesizing it, developing research questions, and presenting their ideas clearly in written and oral form. *Prerequisites: None.*

SLF480 Direct Studies (Biotechnology) 4.0 credits. Through seminars and research, individual programs are developed with each student. A student is required to acquire knowledge in fields such as anatomy, physiology, biochemistry, surgical (animal) procedure, pathology, genetics, and embryology, which will complement the student's research interest.

Students are guided in their study by the preceptorial method, lectures, and discussions.
Prerequisite: Junior or senior status.

SPE 121 Basic Concepts of Special Education 3.0 credits. An introductory course that provides an understanding of the three basic domains in special education: psychological, developmental and cognitive. In each of these domains, basic concepts and considerations are discussed including definitions, characteristics and classifications. The historical milestones of special education, modern trends and educational offerings are also presented. *Prerequisite: None.*

SPE 221 Self Concept Development 3.0 credits. Explores the dynamics of school achievement and psychosocial relationships. Procedures for enhancing children's self-concept in the classroom are presented, and interrelationships between self-concept and exceptional conditions in children are examined. *Prerequisite: None.*

SPE 222 Percep-motor Skils 3.0 credits. An in-depth analysis of perceptual-motor skills development as the foundation for learning. Fine and gross motor skill, visual, auditory, kinesthetic, and tactile skill development are discussed. A review of effective prosthetic devices and procedures is presented. *Prerequisite: None.*

SPE 311 Therapeutic Communication Process 3.0 credits. This course stresses facilitative communication with students. Barriers to communication and different communication styles are explored. Application of principles and techniques in simulated and actual classroom situations are presented. *Prerequisite: None.*

SPE 312 Language and Social Development 3.0 credits. Provides an in-depth analysis of language and social skill development. Basic linguistic input and output are discussed in detail while the rudimentary social skills of exceptional children and youth are highlighted. *Prerequisite: None.*

SPE 342 Curriculum Planning Development Skills 3.0 credits. An in-depth analysis of each developmental skill area. Emphasis is placed upon the sequence of goals, objectives, and competencies of each skill area. *Prerequisite: None*

SPE 452 Instr Models 3.0 credits. Instructional Models for Teaching Developmental Skills focuses on current and experimental models of teaching developmental skills. General curricula and the teaching of music and art are explored and developed. *Prerequisite: special education majors.*

SPE 453 Ed Strategies of Cognitive Skills 3.0 credits. Presents the various teaching strategies utilized in educational settings for individuals with disabilities. The effective implementation of a format for curriculum development is discussed. Curricula for the various developmental levels of individuals with disabilities and methods for dealing with various learning needs are presented. This course focuses on current experimental models of teaching developmental skills. General curricula are explored and developed. Included are various teaching strategies and methods that are utilized in educational settings for individuals with special needs. *Prerequisite: None.*

SPH 100 Physical Science 3.0 credits. Various disciplines of the physical sciences are included in this course. Emphasis on scientific method and reasoning. Topics from physics, chemistry, astronomy and geology. *Prerequisite: None. (Natural Science General Education Course).*

SPH 101 Astrobiology I 3.0 credits. This course will explore the field of study known as astrobiology. Through a series of lectures, inquiry-based activities, and assigned projects, students will investigate the origin of life on earth and the search for life on other planets. Students will explore diverse concepts in Chemistry, Physics, Biology, Earth and Space Science, and Engineering. Research experiences and long-term, independent experiments will enable students to be active participants in the real processes of science research and discovery. **(Natural Science General Education Course).** *Prerequisite: None.*

SPH 211 Physics I (Non-Calculus) 4.0 credits. A non-calculus based introduction to the classical theories of mechanics, heat, and sound. The course utilizes traditional laboratory, microcomputer based laboratory and problem based discussions in class meetings to facilitate constructivist learning of the students. *Prerequisite: MAT 111.*

SPH 212 Physics II (Non-Calculus) 4.0 credits. A non-calculus based introduction to the classical theories of electricity, magnetism, and optics. The course utilizes traditional laboratory, microcomputer based laboratory and problem based discussions in class meetings to facilitate constructivist learning of the students. *Prerequisite: SPH 211.*

SPY 211 Physics I 4.0 credits. A calculus based introduction to the classical theories of electricity, magnetism, and optics. The course utilizes traditional laboratory, microcomputer based laboratory and problem based discussions in class meetings to facilitate constructivist learning of the students. *Prerequisite: MAT 160.*

SPY 212 Physics II 4.0 credits. A calculus based introduction to the classical theories of electricity, magnetism, and optics. The course utilizes traditional laboratory, microcomputer based laboratory and problem based discussions in class meetings to facilitate constructivist learning of the students. *Prerequisite: SPY 211.*

XEA 500 Personnel Education Administration 3.0 credits. Concepts, practices, and skills related to the principal's involvement in personnel affairs. Personnel policies, recruitment, selection, orientation, evaluation, development, security, compensation, motivation, professional negotiations, and grievance procedures as they relate to achieving organizational purposes are included. *Prerequisite: None.*

XEA 501 School Finance 3.0 credits. The school administrator's tasks relating to funds and facilities. Concepts and practices of budget development and administration, local school funding, and state and federal aid. Plant utilization operation and maintenance, enrollment projections, site and architect selection, financing and the development of educational specifications. *Prerequisite: None.*

XEA 506 Administrative Theory 3.0 credits. Major conceptual frameworks advanced by organization theorists with emphasis upon roles, tasks, and processes of Educational Leadership. Hypothesis, concepts, and practices dealing with organization, motivation, and leadership theories. *Prerequisite: None.*

XEA 507 Computer Concepts and Techniques 3.0 credits. An introduction to computing concepts and basic information processing; management skills for educators through practice; common data/information processing; management tools skills covered include text editors, word processing, HTML for text and Web pages; database management systems for factual data, and spreadsheet software. Other issues related to information technology are also discussed. *Prerequisite: None.*

XEA 508 Problems in Urban Education Administration 3.0 credits. Problems in educational administration and supervision in an urban setting; contemporary issues involving public school staff, parent and student groups, and the more promising approaches to school administration in urban areas; values, attitudes, and aspirations of economically and educationally disadvantaged populations in metropolitan environments. *Prerequisite: None.*

XEA 509 Dynamics of Educational Change 3.0 credits. Each participant identifies a real problem in his/her educational setting, the solution to which requires some sort of change taking place. Participants evaluate various change models, select one model, relate it to the problem at hand, and design a plan for implementing change in the classroom, school, or district. *Prerequisite: None.*

XEA 510 Administration of Special and Early Childhood Education 3.0 credits. Recent revisions in educational policies and theories, as well as research and legislation, in early childhood education and special education require that principals have additional competencies since the principal will assume responsibility for the education of the total school-age population within the school's geographic boundaries and possibly for some of the population in the contiguous areas. For these reasons, it is necessary that the principal develop skills, knowledge, and attitudes which will help him/her perform the duties required in the operation of programs for all. *Prerequisite: None.*

XEA 514 Organization and Administration of Public School 3.0 credits. The origin, development, and organizational patterns of the public school; the role of the principal – its evolution, current administrative and supervisory practices, and functional relationship to the total educational structure. *Prerequisite: None.*

XEA 515 School and Community Relations 3.0 credits. Issues and problems in school-community relations that have significant administrative implications. Public relations principles and practices, community analysis, public participation in educational affairs, and professional accountability. *Prerequisite: None.*

XEA 520 Techniques for Successful Women Administrators 3.0 credits. Designed for men and women, an examination of issues and problems which have implications for the selection of women administrators and for their success in administrative positions. *Prerequisite: None.*

XEA 524 Secondary School Supervisor/Curriculum 3.0 credits. Secondary school curriculum development and principles and techniques for the improvement of the teaching-learning process. Curriculum construction and strategies and the enhancement of teaching skills. *Prerequisite: None.*

XEA 525 Supervision Instruction 3.0 credits. A role model and field experience-oriented course for developing an understanding of the process, patterns, and products of competent supervision of instruction in schools. *Prerequisite: None.*

XEA 526 Principles and Practicum of Curriculum Development 3.0 credits. This course is designed for persons who aspire to be school administrators and supervisors. It will attempt to clarify the meaning and concepts of curriculum theory. Contemporary curricular problems will be analyzed from the perspectives of existing societal forces, educational change agents, and school administrators. The course will also analyze the various forces and beliefs that tend to oppose change, therefore, making schools and their educational programs more conservative. *Prerequisite: None.*

XEA 542 School Law 3.0 credits. The fundamental legal principles within which public education functions: constitutional law, statutory law, and case law. The case-study approach is the dominant method of inquiry. Students develop the ability to study legal problems through reference to the school code, appropriate legal summaries, and research of court decisions. *Prerequisite: None.*

XEA 603 Internship 3.0 credits. Quasi-administrative tasks under the supervision of both college staff and public school administrators in selected educational settings. Performance criteria developed from the role model are the bases of evaluation. A seminar provides unified sharing of experience and the further building of relevant technical skills. *Prerequisite: None.*

XEA 605 Administrative Field Work Experience 3.0 – 6.0 credits. Credit granted toward a master's degree in educational administration to those who qualify under the procedures prescribed by the Department of Education and Leadership Studies. The amount of credit is determined by an assessment of competencies required of the applicant by the department and a select panel of judges. *Prerequisite: Administrative experience.*

XEA 609 Dynamics of Educational Change: Field Application 3.0 credits. A continuation of XEA 509 with participants implementing plans for change developed in that course. Field supervision is provided on an individual basis. *Prerequisite: XEA 509.*

XED 522 Seminar in Education Field I 6.0 credits. Student teaching provides a full semester of field-based experiences to further develop teaching competencies to plan, implement, and evaluate effective instructional strategies based on Pennsylvania Academic Standards. Support is provided by a university supervisor, a cooperating teacher, and public school/university faculty. Regularly scheduled practicum sessions enable candidates to discuss important educational issues, employ problem-solving skills, reflect upon and analyze teaching and learning experiences, and explore career opportunities. *Prerequisite: None.*

XED 523 Seminar in Education Field II 3.0 credits. Student Teaching *Prerequisite: None.*

XED 542 School Law 3.0 credits. The fundamental legal principles within which public education functions: constitutional law, statutory law, and case law. The case study approach is the dominant method of inquiry. Students develop the ability to study legal problems through reference to the school code, appropriate legal summaries, and research of court decisions. *Prerequisite: None.*

XEE 501 Basic Concepts in Math 3.0 credits. An overview of the basic concepts and functions in upper elementary and middle school classrooms (e.g., set theory, rational numbers, prime numbers, decimals, percent, geometry, algebraic expressions, etc.) *Prerequisite: None.*

XEE 504 Seminar Education Media 3.0 credits. Research in educational media with limited experiments in production. Preparation of an intensive study of selected media is required. *Prerequisite: None.*

XEE 506 Curriculum Reading Instruction 3.0 credits. Significant research, leading theories, and methods of teaching reading in the elementary school. To help in-service teachers recognize and deal appropriately with the wide range of individual differences in reading which are exhibited by elementary pupils. Techniques and materials essential to the teaching of elementary grade reading skills in content subjects. *Prerequisite: A course in the teaching of reading at the elementary/middle school level.*

XEE507 Seminar in Innovative Teaching 3.0 credits. Recent trends in methods, techniques, and organizational patterns likely to characterize the elementary/middle school of tomorrow. Factors that have influenced the growth of these trends, along with a detailed study and evaluation of their extent nationally. *Prerequisite: None.*

XEE 508 Children's Literature 3.0 credits. Sources and types of literary materials for children. Principles for material selection. Methods of developing literary standards. Students participate in storytelling and dramatization. *Prerequisite: None.*

XEE 509 Social Science in Elementary School 3.0 credits. A study of the pertinent and timely issues relating to the social studies, such as the interdependence of man, his culture, and political structures; similarities and differences in temperate cultures; how the study of one group's inferences can be made from another. *Prerequisite: None.*

XEE 511 Advanced Educational Measurements 3.0 credits. This course focuses on the measurement, assessment and evaluation techniques. Students will discuss various measures of assessing students and programs, and will be required to evaluate test scores, students and programs. *Prerequisite: None.*

XEE 516 Methods and Techniques Elementary Math – matrc 3.0 credits. For students not majoring in mathematics. The nature of the number system, the application of the fundamental processes, extension of the number system, approximate nature of measurements, graphs, tables and equations; the language of algebra; formulas; the meaning of mathematical proof and geometric reasons; elementary concepts of statistics; metric system and other topics of current interest. Stress is placed on variety in methodology. In-depth study of the metric system is included. *Prerequisite: None.*

XEE 517 Science in Elementary School 3.0 credits. Interdisciplinary units and problems for each grade level. Emphasis on developing resourcefulness, gathering data, and using the scientific method to solve the problems. Strengthens student competence in teaching science. *Prerequisite: None.*

XEE 520 Clinical Experience in Education 3.0 credits. An apprenticeship in an appropriate educational setting that begins in an observatory mode briefly ascends into a more

complex assignment with more responsibilities. The classroom supervisor along with the college supervisor monitors, coaches, sets expectations, and assesses outcomes. *Prerequisite: None.*

XEE 521 Methods in Teaching Reading in Elementary and Middle School 3.0 credits. Research-based instruction that effectively prepares students to deliver a balanced, comprehensive program of instruction in reading, writing and related language arts. A balanced approach to reading/language arts instruction includes explicit instruction in basic reading skills and comprehension strategies for all students' w/varied reading levels and language backgrounds. *Prerequisite: None.*

XEE 523 Diagnostics Remedial Reading 3.0 credits. Children's reading problems, remedial exercises, case reports, research on latest trends and developments. *Prerequisite: None.*

XEE 524 Elementary Education Curriculum 3.0 credits. Elementary education curricula, including those of cities and suburbs mandated by various states, including Pennsylvania. Emphasis on current research and standards of the learned/professional societies. *Prerequisite: None.*

XEE 525 Supervisor in Elementary Education 3.0 credits. By examining all aspects and degrees of supervision, students develop an understanding of the complexities and responsibilities involved in their leadership role. *Prerequisite: None.*

XEE 541 Contemporary Issues in Education 3.0 credits. A study of timely best practices that continually have an impact on teacher education. Also, the agencies that control teacher education will be explored. *Prerequisite: None.*

XEF 500 Elements in Research 3.0 credits. Meaning and objectives of research and research methodology. Trends and issues in educational research. Applications for educational practice. *Prerequisite: None.*

XEF 501 Philosophy of Education 3.0 credits. An analysis of educational concepts and the contributions to the foundations of educational policy and practice. *Prerequisite: None.*

XEF 502 Urban Education 3.0 credits. Problems associated with education in metropolitan areas. Course designed to prepare more teachers for concerns of inner-city lifestyles by building better understanding and promoting appropriated and innovative teaching techniques. *Prerequisite: None.*

XEF 503 Psych Statistics 3.0 credits. Fundamental principles and techniques of measurement. Descriptive statistics, correlation, probability theory, tests of significance and their interpretation, chi-square, z and t. *Prerequisite: XEF 500.*

XEF 511 Advance Measurements 3.0 credits. Advanced evaluative techniques to support instruction, research, and record keeping and assessment of students. *Prerequisite: XEA 511 and consent of instructor.*

XEF 518 Intergroup Education 3.0 credits. An introductory course designed to make the curriculum more effective in urban society. The nature of prejudice, attitude change, skills and techniques for fostering school and community action projects. Current literature and selected

readings considered as a basis for expanding knowledge and approaches to practical problems. *Prerequisite: None.*

XEF 519 Soc-psych Tchg-Img 3.0 credits. The education and psychology of disadvantaged children- the economically poor, the academically unmotivated, the socially or vocationally depressed; students' personal characteristics and sociological foundations in conjunction with the emotive values in literature and the socio-psychological values in the curriculum and the teaching-learning process. *Prerequisite: None.*

XEF 526 Intmntl Ed Stds 3.0 credits. World political and social institutions including education; structure and functions of ideologies; similarities and differences of educational systems and how these have influenced the development of our own institution. Knowledge of global educational experiments, issues, and experiences expand the capacity for critical analysis of one's own system. *Prerequisites: None.*

XEF 599 Independent Study 3.0 credits. Directed study pertaining to a special field of interest approved by the student's faculty advisor. In addition, this course may address the refinement of the student's research project or thesis. *Prerequisite: Approval of Instructor.*

XEF 600 Seminar: Research Project 3.0 credits. With the approval and guidance of the instructor/advisor, the student will engage in a research project which has applications for educational practice. Number of credits to be pre-approved by the advisor. *Prerequisite: XEF500.*

XEF 601 Thesis, Seminar 3.0 credits. Students develop a study involving research on a significant problem. The study involves an approved research procedure and culminates in a thesis. The subject of the student's thesis must have the prior approval of an advisor and/or a special graduate committee. Students must continue to enroll for thesis until the research requirement has been satisfied. *Prerequisite: XEF 500.*

XHU 520 Seminars in Humanities 3.0 *Prerequisite: None.*

XMA 520 Curriculum and Instruction Elem/Special Education 3.0 credits. This course will center around public schools curriculum frameworks, with emphasis on the fundamental principles of curriculum development. It will attempt to clarify the meaning and concepts curriculum theory, with a specific focus on constructivism. Contemporary curricular problems will be analyzed from the perspective of existing societal forces, educational change agents and school administrators. The course will also analyze the various forces and beliefs that tend to oppose change therefore, making schools and their educational programs more conservative. Emphasis will be placed on individual differences, types of learning styles and various strategies, which are used to individualize instruction. Students will work on projects which can be applied to their own teaching assignment. *Prerequisite: None.*

XMA 525 Educ and Cult Diverse Student 3.0 credits. This course focuses on how children, adolescents and adults grow, develop and learn. Emphasis will be on the growth and development of humans and the psychology of learning. In addition, it will focus on ways to identify their own values, prejudices, and goals; to examine their thoughts and/or misconceptions about culturally diverse communities. It is designed to help teachers create

school climates that celebrate diversity and meet the needs of students of different races, ethnicities, gender, and ability levels. *Prerequisite: None.*

XMA 530 Literacy Dev (Inst Stra for Diverse Lm) 3.0 credits. This course focuses on teaching reading in the elementary/middle schools. It examines how literacy develops through the influence of the home, school and larger society. It presents a historical overview of the changing views of literacy and its impact on instruction, to more current and significant research theories and practices in Reading Education. Participants will examine such topics as technology in reading instruction and learning; teaching students from various cultural and linguistic backgrounds; and students with special challenges will be discussed. The course offers multiple methods of instruction, along with principles to help teachers choose among options for specific students and situations. Class participants will engage in discussion and assignments geared towards the use of authentic literature, integration of instruction in the language arts and across curriculum, holistic instruction, active involvement of students in learning activities, and use of alternative assessment measures. *Prerequisite: None.*

XMA 535 Language Arts/Social Studies: Content Lvl 1 3.0 credits. This course reflects a cross-discipline emphasis in teaching children's literature and the language arts via an integrated, thematic curriculum approach. Additionally, it combines a detailed examination of the content and methodology for teaching social studies K-8. Throughout this course students will be responsible for designing lessons, units and project plans as well as a variety of methods for evaluating and assessing student performance using both formal and informal interviews and assessment procedures. *Prerequisite: None.*

XMA 540 Educational Technology and Instructional Design. 3.0 credits. This course focuses on how to use technology to enhance teaching, learning and assessment. It also includes how to design lessons and units using technology. The course emphasizes the combination of human and non-human resources employed in a systematic way in the design, implementation, and evaluation of the total process of learning and teaching. Several areas included in the course are visual literacy, multi-media application, outdoor laboratories, computers, simulation, and games. All are presented within the broad context of instructional technology as a practical and effective means of improving teaching and learning. *Prerequisite: None.*

XMA 545 Science & Mathematics Cont Lvl II 3.0 credits. This course covers the content and methodology of elementary school science. Emphasis is on the development of a classroom science program that will further the child's ability to solve problems logically, objectively, independently, and creatively. Students in this class will develop the knowledge, skills and attitudes necessary for teaching science using activity-based methods. Additionally, this course will focus on recent developments in the teaching and learning of elementary school mathematics. Emphasis will be placed on evaluation of mathematical learning, instruction and programs. The use of technology and how to integrate its use appropriately in an elementary science and mathematics program will also be emphasized. *Prerequisite: None.*

XMA 550 Development Learning Community 3.0 credits. This course focuses on how to best teach music, art, drama and physical education at the early childhood, elementary and middle levels. The students will design curriculum units and lesson plans to demonstrate how to teach. Analyzes a wide spectrum of human relations within the broad area of urban public schools. Common professional problems are discussed. *Prerequisite: None.*

XMA 555 Education Assessment and Evaluation 3.0 credits. This is an introductory course designed to provide students with an understanding of the role of assessment and evaluation as utilized in educational settings. Emphasis will be placed on assessment of students, teachers, instructional practices, and schools. Opportunities for reviewing and interpreting evaluation tools and data will be provided. The social, political and cultural perspectives of assessment and changing paradigms will be among the topics investigated. A critical aspect of this course is that students will be given opportunities in teams, and individually, to critique and develop educational assessment measures/instruments. *Prerequisite: None.*

XMA 560 Final Portfolio 3.0 credits. Under the auspices of a university professor, students will conduct an action-research based inquiry and reflective analysis of an identified topic that will be framed as a qualitative research question, written presentation of research project that has been formally approved and accepted by the student's research advisor and/or committee. The project involving a significant problem should demonstrate a student's proficiency. Continuous enrollment is required until the research requirement is satisfied. *Prerequisite: None.*

XMA 565 Independent Study 3.0 credits. Directed study pertaining to a special field of interest approved by the student's program advisor. In addition, this course may address the refinement of the student's research project or thesis. *Prerequisite: None.*

XPA 500 Effective Profession Comm Skills 3.0 credits. The ability to communicate effectively is one of the most important skills for professional success. This course is designed to improve a student's ability to use written, graphic, oral and other communication techniques. Students will build and develop communication skills needed to express and conceptualize ideas in their respective professions. The course will emphasize written and oral communication skills. Topics will include instruction in report writing, grant writing, and other specialized professional communication skills necessary. *Prerequisite: None.*

XPA 501 Introduction to Public Management – 3.0 credits. This introductory course covers the historical development of public administration theories and principles. Emphasis is placed on writing and analysis for public management. *Prerequisite: None.*

XPA 502 Organizational Theory 3.0 credits. This course explores organizational development as it applies to the public sector. There is a special emphasis on the application of organizational theories in the public sector and public management organizational issues. The course includes extensive analysis and interpretation of these theories. *Prerequisite: None.*

XPA 503 Intergovernmental Relations 3.0 credits. This course examines issues involved in the management of fiscal and policy relations at all levels of government. Special emphasis is placed on state, local and border relations and the implementation of public policy. *Prerequisite: None.*

XPA 504 Public Policy 3.0 credits. This course explores various public policy issues, including implementation and analysis. Specific public policies such as education, transportation, diversity, etc. will be examined. *Prerequisite: None.*

XPA 505 Public Budgeting 3.0 credits. This course introduces students to practical applications of the theories of budgeting within public organizations. Various types of budgeting practices will also be examined. *Prerequisite: None.*

XPA 506 Public Personnel Management 3.0 credits. This course is an introduction to the principles of managing human resources in the public sector. Special emphasis is placed on affirmative action, and the role of administrative law in personnel management. *Prerequisite: None.*

XPA 507 Geographical Info Sci (GIS) for Managers 3.0 credits. This course introduces students to the theoretical and practical use of GIS in the public sector with special emphasis on the organizational and public policy applications. *Prerequisite: None.*

XPA 508 Quantitative Decision making for Manag 3.0 credits. Application of statistics and research methodology used by managers within the public sector, special emphasis on methods used in program evaluation and human resources management. *Prerequisite: None.*

XPA 511 Criminal Justice Process 3.0 credits. This course is an in-depth survey of the various aspects of the Criminal Justice/Law Enforcement enterprise as it exists in America today. The course will include an analysis of the evolution of the modern criminal justice and court institutions in the United States and will make comparison with other modern systems. Consideration will be given to how individuals move through the system with particular attention to the procedural details necessary to administration. The course will also focus on contemporary controversies in crime and justice such as race, ethnicity, and national security policies. *Prerequisite: None.*

XPA 512 Law Enforcement Management 3.0 credits. This course builds on the Criminal Justice Process course by focusing on management issues in law enforcement. It will begin with a survey of management styles and best practices in administering police agencies. Consideration will be given to basic management techniques and how they apply to law enforcement administration, as well as to those elements that are unique to law enforcement. The course will deal in part with issues such as police ethics and maintaining morale, along with other issues common in the field. *Prerequisite: XPA 511.*

XPA 513 Administrative Law 3.0 credits. This course is an examination of the case decisions, regulations, constitutional impacts and related actions of national, state, local and intergovernmental government agencies. The course also examines the process of producing law, and its application. Special emphasis is placed on the comparative nature of administrative law in order to provide a global perspective. *Prerequisite: None.*

XPA 520 Community Development Seminar 3.0 credits. This course is an overview of local and international community development issues, and the role of community based organizations. Special emphasis is placed on the politics of managing these types of organizations. *Prerequisites: None.*

XPA 521 Seminar in Group Organizational Dynamics 3.0 credits. This course is the study of the structure of small and large groups. Emphasis is placed on individual behavior and group processes, current theoretical views, significant research and the application of these to non-profit organizations, community interactions, and social change. The course will highlight the structure of non-profit organizations. *Prerequisite: None.*

XPA 523 Minority/Women Administrators 3.0 credits. Public Administrators operate in an increasingly diverse world both nationally and internationally. Therefore, it is important that they

have an understanding of the important contributions that minorities and women can bring to their organizations. In addition, if organizations are to flourish and be healthy, administrators must address the issues and concerns of these groups. This course examines the issues, problems, and opportunities that influence the selection, evaluation, and promotion of minorities and women in public and non-profit organizations. It also examines their opportunities for successful management. *Prerequisite: None.*

XPA 524 Managing Non-profit Human Resources 3.0 credits. This course will introduce students to the issues particular to managing personnel (paid and volunteer) and boards of directors in the non-profit sector. The course addresses issues concerning managing diversity. Managing supervisors, and the technical issues of human resource management. *Prerequisite: None.*

XPA 525 Non-Profit Finances and Budgeting 3.0 credits. This course shall focus on budgeting and basic non-profit accounting skills, finance, investment decision-making, analysis and planning, cost effectiveness, present value analysis, cash flow analysis, generating earned income, managing endowments, gifts and grants, and tax planning. *Prerequisite: None.*

XPA 526 Fundraising and Marketing for Non-profit 3.0 credits. Non-profit organizations are typically dependent upon the generosity of foundations, the government, and/or individual citizens in order to provide services. Special attention will be given to: the history, theory and practice of philanthropy. Unrelated business income, charitable trusts, related tax law, grant writing, direct mail, one-on-one solicitation, use of the Internet, as well as tapping the talents (and resources) of the board of directors of the organization. *Prerequisite: None.*

XPA 530 Politics of State and Local Government 3.0 credits. This course is an examination of state and local governmental structures, functions, administration and policy. The place and role of state and local governments within the federal system is explored; as well as the limitations of governments in the procurement, development and allocation of resources to meet the public and private demands placed on state governments. *Prerequisite: None.*

XPA 531 Ethnic Groups and Diversity 3.0 credits. In this course students study how various ethnic groups have shaped and influenced the political and social structures within the United States and selected international communities. Special attention is given to ethnic diversity among elected and administrative officials. *Prerequisite: None.*

XPA 533 Government Project Management 3.0 credits. This course serves as a first course in project management and introduces students to the basic principles of project management, as they apply to public projects. Students are also introduced to the international standards of the field. *Prerequisite: None.*

XPA 534 Emergency Management 3.0 credits. This course introduces issues involved in governmental management of natural and manmade disasters. Topics include the planning, and prevention of disasters, organizing community, county, state, national and international responses, fiscal issues, and post disaster activities. Special emphasis will be placed on public policy involving disaster response. *Prerequisite: None.*

XPA 600 Public Administration Internship I 3.0 credits. The MPA program internship class is a two semester course designed to provide pre-professional students with practical work experience within the field of public management. These advanced courses consist of

completing a work assignment in a public or non-profit agency and the completion of an internship paper that demonstrates the student's ability in practical application of public administration theories. An internship is required for all pre-professional track students. The purpose of the internship is to: 1) provide students with the opportunity to obtain practical applications of public administration theories and 2) demonstrate understanding and utilization of the principles in public administration. The final project for students completing an internship is a defense of an internship paper that analyzes public administration theories as they relate to the internship. *Prerequisite: None.*

XPA 610 Public Administration Internship II 3.0 credits. The MPA program internship class is a two semester course designed to provide pre-professional students with practical work experience within the field of public management. These advanced courses consist of completing a work assignment in a public or non-profit agency and the completion of an internship paper that demonstrates the student's ability in practical application of public administration theories. An internship is required for all pre-professional track students. The purpose of the internship is to: 1) provide students with the opportunity to obtain practical applications of public administration theories, and 2) demonstrate understanding and utilization of the principles in public administration. The final project for students completing an internship is a defense of an internship paper that analyzes public administration theories as they relate to the internship. *Prerequisite: None.*

XPA 620 Independent Study 3.0 credits. Study in an area of special interest not treated in course currently offered. Work performed under the direction of an instructor chosen by the student on a topic approved by the MPA coordinator and MPA faculty before the beginning of the semester that the student registers for the course. *Prerequisite: None.*

XPS 500 Problems in Human Growth and Development 3.0 credits. Developmental process from pre-natal through senescence. Emphasis on behavioral changes taking place at various stages of development as functions of heredity and environment. *Prerequisite: None.*

XSE 507 Intro Condsrtns Tchg 3.0 credits. A comprehensive survey of psychosocial, cognitive, and developmental characteristics for education and training will be presented. Definitions and classifications of psychosocial patterns of behavior, learning and cognitive relationships, and growth and developmental trends will be discussed. *Prerequisite: None.*

XSE 510 Current Trends and Research 3.0 credits. Designed to bring into focus certain problems and issues in the psychology and education of exceptional children. These issues and problems represent the reality of the very areas of conflict confronting special educators. Attempts will be made to alert students to the divergences, the arguments, and the data surrounding them. *Prerequisite: None.*

XSE 512 Administration of Special Education 3.0 credits. This course is designed to inform and sensitize pre-service and in-service administrators to the needs, nature and function of the management of Special Education, with emphasis on the coordination of the education of exceptional children with that of all other children. Focus will be on the scope of events and developments affecting the provision of programs for exceptional children. *Prerequisite: None.*

XSE 514 Behav Modification in Education 3.0 credits. The basic concepts, principles, and procedures of behavior modification will be covered. The procedures of behavior modification will be covered. The procedures of both operant conditioning and respondent conditioning will

be applied to hanging commonly occurring behaviors in special classes (high incidence) and to relatively unusual behaviors (low incidence). Special emphasis will be placed on developing competence for planning and implementing behavior programs for individual students and for the class as a whole. The course will be applied to the disturbing behavior of various exceptionalities. *Prerequisite: None.*

XSE 515 Strat Adapt Cog Skills 3.0 credits. Designed to provide a curriculum focus for meeting the needs of "regular" and mainstreamed exceptional youngsters on a day-to-day basis in the regular classroom. Content emphasizes specific techniques and strategies effective in adapting the curriculum to the handicapped student in the mainstream. Educational implications associated with characteristics of handicapped students will be analyzed. *Prerequisite: None.*

XSE 516 Prin Prac Diag Tchg 3.0 credits. The rationale and theoretical foundations of diagnostic teaching will be examined. Stress will be placed on competencies for diagnosing the educational needs of children with learning and behavioral difficulties and for developing and validating individualized prescriptions derived from diagnostic results. Standardized and informal assessment instruments will be studied: the conditions and procedures of assessment will be explored. Students will be expected to administer assessment instruments to school children with learning and behavior problems, to analyze and interpret the findings, and to develop conclusions and prescriptions for instruction. *Prerequisite: None.*

XSE 517 Curriculum Design Development Skills 3.0 credits. An in-depth analysis of the normal sequences of social, emotional, language and communication, motor and perceptual motor development relating those developmental processes and patterns to curriculum planning. Curriculum design will be reviewed with emphasis on the sequence of goals, objectives, and competencies, as well as methods, materials, techniques, activities for implementation and evaluation. *Prerequisite: None.*

XSE 518 Interv Proc Dist Beh 3.0 credits. The theoretical foundations and applications of psych-educational approaches to the improvement of classroom behavior will be explored. Students will investigate an ecology of influences affecting the behavior of children and youth. Major stress will be placed on intervention theories and approaches with special application to classroom cases and incidents. *Prerequisite: None.*

XSE 519 Educational Models and management Systems for Teaching

Developmental Skills 3.0 credits. Current and experimental models for teaching developmental skills will be reviewed. Methodologies and technologies utilized in scheduling procedures, organization of educational environments, and the selection of materials and equipment will be discussed. The interdisciplinary team role and function, as well as its organization and management will be reviewed. *Prerequisite: None.*

XSE 521 Internship in Special Education I 3.0 credits. A field-based course, designed to allow students to develop competency in understanding, administering, and interpreting educational assessment materials that evaluate abilities crucial to learning. Included will be opportunities for the application of assessment data to the development of individual educational programs with major attention to asst other staff in assessing and programming for exceptional children. *Prerequisite: None.*

XSE 524 Internship in Special Education IV 3.0 credits. This course is a practicum experience in which a student assumes responsibility for providing an educational program to serve the varied needs of the diverse population of exceptional children. Particular emphasis will focus on student competencies to manage a classroom of exceptional children, conduct effective assessment, and promote skills needed by exceptional children for effective living. *Prerequisite: None.*

XSH 520 Seminar in Humanities 3.0 credits. An integrated course in the humanities to offer the student the opportunity to approach the area of humanities by and through the "image of man" that a particular area of humanistic studies presents. Through the use of this critical category of the "image of man", the student will be encouraged to investigate through research and discovery the significant motifs which arise from his encounter with the world of experience presented through the humanities. An extensive and intensive study of works of literature, philosophy, religious thought, art and music from ancient times to the present will form the course content. As an interdisciplinary course, the seminar will not only emphasize the particular student's encounter with a particular aspect of humanistic studies, but will also attempt to point out the significance of the meeting within the area of humanistic studies themselves. *Prerequisite: None.*

ACADEMIC POLICIES

Academic Amnesty

Former Cheyney University students that are readmitted to the institution may be eligible for academic amnesty. To be eligible for academic amnesty, or grade deletion, the applicant must satisfy the following criteria:

- The student has been away from the university for 3 or more years since the time of departure
- The student has not previously been granted academic amnesty at the host institution
- The student has formally requested academic amnesty at the time of reapplying to the university.

If academic amnesty is granted, the following stipulations are contingent on the process:

- It is a one-time irrevocable request.
- Academic Amnesty is applied to all courses; even those with passing grades
- The grades will remain on the student's permanent record.
- The grades will remain on the student's transcript with the original grade and an asterisk (*)
- Students will receive full credit for courses completed pre-amnesty