

EXED 435. Characteristics of Students with Visual Impairments. 1 credit.
This course provides an overview of the characteristics of and services to persons with visual impairments, including the impact of visual impairments on infants' and children's growth and development, child and adolescent emotional and social development, and family interaction patterns. It considers the educational, conceptual, psycho-social and physical implications of a visual impairment. This course is delivered via a distance education format.

EXED 440. Classroom Management and Professional Collaboration. 3 credits.
A focus on techniques used to manage the behavior of students. Emphasized are strategies used to prevent inappropriate behavior from occurring and/or worsening. Other interventions are taught such as techniques for working with others (e.g., parents, teachers and administrators) who may provide behavior management assistance to teachers and administrators.

EXED 441. Functional Applications of Low Tech Assistive Technology. 2 credits.
This course will focus on functional applications of low-technology solutions within the areas of self-care; mobility and transfer; communication; stability and support; sports, recreation, and leisure; and academic and work environments. The course will include exploration and opportunities to design and create low-tech devices for children and adults. *Prerequisite: EXED 300.*

EXED 442. Computer Technology and Individuals with Disabilities. 3 credits.
This course is designed to increase students' awareness and understanding of computer technology and its implications for individuals with disabilities. It will examine the accessibility of standard computer hardware and software as well as explore available assistive technologies designed to enhance computer accessibility and the functional capabilities of individuals with disabilities. Laboratory and demonstration experiences will enable students to better utilize devices and software in a variety of settings. *Prerequisite: EXED 300, EXED 441 or permission of the instructor.*

EXED 443. Assistive Technology Use for Individuals with Disabilities. 2 credits.
This course is designed to enhance students' awareness and understanding of the range of assistive technologies available and their instructional implications for individuals with disabilities. Laboratory and demonstration experiences will enable students to select and utilize devices and software in settings serving individuals with disabilities. *Prerequisite: EXED 300.*

EXED 450. Principles of Specialized Reading Instruction. 3 credits.
The content of this course will focus on the acquisition and development of reading skills for students with disabilities. Content will include: characteristics of students with reading disabilities; informal assessment strategies; the relationship of oral language to reading; stage-development of reading skills; research-based instructional methods; principles of specialized reading instruction; scientifically-based reading programs for students with disabilities; and collaboration with parents to enhance students' reading skills. *Prerequisite: READ 430.*

EXED 455. Collaborative Teaching for Learners with Disabilities. 3 credits.
Students in this course will gain knowledge and practice skills in consultation, case management, and collaboration with individuals, families, educators, related service providers, and other human service professionals. An overview of collaborative processes, collaborative models for supporting the education of students with disabilities and for effective management of paraprofessionals will be studied. *Prerequisite: EXED 200 or equivalent.*

EXED 460. Differentiation of Instruction and Academic Collaboration. 3 credits.
This course assists preservice teachers in using their understanding of exceptional learners and learning to accommodate the diversity of students in the general education classroom. In addition, preservice teachers will explore the roles of teachers and how general and special education teachers collaborate to meet the needs of exceptional students.

EXED 465. Perspectives of Early Childhood Special Education. 3 credits.
This course is designed to provide the student with an overview of educational programming and service delivery for children with developmental delays and/or disabilities, ages 0 to 5. Particular attention is given to federal legislation, historical perspective and current recommended practice in programming educational services for young children with delays and/or disabilities.

EXED 470. Directed Practicum in Special Education. 3 credits.
This practicum course provides a structured supervised experience teaching students with disabilities. Application of skills in planning direct instruction, creating instructional materials, collecting performance data, managing behavior and developing social skills will be emphasized. *Prerequisite: EXED 475.*

EXED 471. Practicum in Integrated Primary EXED. 1 credit.
This practicum experience will provide an opportunity to enhance understanding of the scope and sequence of the general education curriculum, to observe the learning and behavioral characteristics of primary grades students with developmental delays and/or disabilities in inclusive educational settings and to observe methods for delivering instruction in inclusive classrooms. *Prerequisite: This course is for EXED-ECSE students only. Corequisite: READ 436.*

EXED 475. IEP and Curriculum-Based Assessment. 3 credits.
A detailed study of purposes and procedures involved in the development of Individualized Educational Programs (IEP) for students with disabilities. In addition, the course emphasizes the selection or design of curriculum-based assessment to plan and evaluate instruction in academics, social behaviors and life skills. *Prerequisite: EXED 350.*

EXED 485. Systematic Behavioral Interventions. 3 credits.
An application of various systematic behavioral interventions to the management of behavior and learning of individuals with disabilities. Approaches to teaching social skills are also addressed. *Corequisite: EXED 470.*

EXED 490. Special Studies in Special Education. 1-3 credits each semester.
Designed to allow the student to complete independent study under faculty supervision. *Prerequisite: Permission of the program coordinator.*

EXED 499. Honors. 6 credits.
See catalog descriptions titled "Graduation with Distinction" and "Graduation with Honors."

Family Studies

Department of Social Work

FAM 133. The Contemporary Family. 3 credits. *Offered fall and/or spring.*
Concepts of variations in forms and lifestyles of families. Consideration is given to the family life cycle and the interdependency between the family and society.

FAM 300. Child Development. 3 credits. *Offered on a rotating basis.*
A study of the factors influencing the physical, cognitive, social and emotional growth of the young child. Emphasis is given to the importance of family relations and development of observational skills. *Prerequisite: GPSYC 101, GPSYC 160 or equivalent.*

FAM 330. Family Relations. 3 credits. *Offered on a rotating basis.*
A study of the structures, functions and dynamics of contemporary families with consideration of diverse cultural definitions and contexts. *Prerequisite: FAM 133 or SOCI 276.*

FAM 335. Parent-Child Relationships Across the Lifespan. 3 credits. *Offered on a rotating basis.*
Focuses on intergenerational caregiving and interactions across the lifespan and generations. Uses a developmental framework to explore family life as the territory in which people fulfill relational responsibilities to children and parents while simultaneously attending to independent life stage challenges. *Prerequisite: FAM 133 or SOCI 276.*

FAM/GERN/NPS/SOWK 375. Grant Writing for Agencies. 3 credits. *Offered on a rotating basis.*

Emphasizing active learning, this course teaches the basics of grant and proposal writing. Efficient research, persuasive prose and the importance of relationships are stressed. Private and corporate philanthropy are examined with guest speakers providing current insights. Students research, write and complete a funding proposal.

FAM/SOWK 386. Youth Empowerment Strategies (YES). 3 credits. *Offered fall and/or spring.*
Students learn to use group activities that include the creative arts, low ropes and self-discovery in youth empowerment. The goal is to help youth build life skills and make informed decisions. Prior to beginning work with youth, students complete 25 hours of training.

FAM 400. Issues and Applications. 3 credits. *Offered fall and spring.*
This seminar is designed to integrate and apply knowledge from the student's major and the family studies minor. A substantial, in-depth individualized project will strengthen the student's capabilities in research, information access and self-directed learning. *Prerequisites: FAM 133 or SOCI 276, three additional courses in the family studies minor, and junior or senior standing.*

FAM 487. Special Topics in Family Studies. 3 credits. *Offered on a rotating basis.*
Examination of selected topics that are of current importance to family studies. Course may be repeated for credit. *Prerequisite: FAM 133 or SOCI 276.*

FAM 490. Special Studies in Family Studies. 1-3 credits. *Offered fall and/or spring.*
The course is designed to give capable students in family studies an opportunity to complete independent study under faculty supervision. Course may be repeated for credit. *Prerequisites: FAM 133 or SOCI 276 and two additional courses in the family studies minor or permission of the instructor.*

Finance

College of Business

FIN 210. Principles of Real Estate. 3 credits. *Offered fall and spring.*
Emphasizes industry principles and economic factors influencing the real estate business. Subjects include contracts, deeds, valuation, financing and subdivision development.

FIN 250. Introduction to Quantitative Finance. 3 credits.
A broad introduction to the markets and instruments of engineered finance. The focus of the course is to expose students to the properties and uses of the array of non-traditional financial instruments that are increasingly trading in both the exchange and over-the-counter markets. *Prerequisite: MATH 236 or permission of the instructor.*

FIN/ECON 325. Money and Banking. 3 credits.
Examines the economic role of money, banking and monetary policy within current institutional settings and under alternative theories explaining the interrelationships between money, the financial system and economic activity. *Prerequisites: ECON 201 and GECON 200.*

FIN/MATH 328. Time Series Analysis. 3 credits.
Regression and exponential smoothing methods for forecasting nonseasonal and seasonal time series, stochastic processes, Box-Jenkins' autoregressive and moving average models. *Prerequisites: MATH 238 and MATH 318.*

FIN 345. Finance for the Non-Financial Manager. 3 credits. *Offered fall and spring.*
Study of theoretical concepts and analytical techniques to aid management decisions on financial problems. Topics include: working capital and fixed asset management for profit expansion. *Prerequisites: COB 241, junior standing (56 hours) and a cumulative 2.0 grade point average in all courses taken at JMU. Restricted to non-college of business majors.*

FIN 360. Money and Capital Markets. 3 credits. *Offered fall and spring.*
An examination of the domestic and international markets for financial products. Emphasis will be placed on the theoretical underpinnings of cash flow valuation and basic applications of financial price determination. *Prerequisite or corequisite: COB 300. Not permitted for quantitative finance majors.*

FIN 362. Financial Analysis. 3 credits. *Offered fall and spring.*
The purpose of this course is to prepare the finance major to use and interpret economic and accounting information that is essential in financial analysis and valuation. This course provides a foundation for further study in managerial finance and investments. *Prerequisite: COB 300.*

FIN 365. Intermediate Financial Management. 3 credits. *Offered fall and spring.*
In-depth study of the theories of capital structure, long-term financing decisions, working capital management and current topics such as mergers and bankruptcy. Computer applications. *Prerequisite or corequisite: FIN 360. For quantitative finance majors only, prerequisite: FIN 250.*

FIN 370. Real Estate Finance. 3 credits. *Offered once a year.*
A comprehensive examination of the decision-making processes involved in purchasing and financing real assets. The focus is on cost of funds and optimal financial structure of complex real estate projects. *Prerequisite: COB 300.*

FIN 371. Principles of Investments. 3 credits. *Offered fall and spring.*
The investor's view of the operation of the capital markets. Theories and practice of investments, including analysis of financial instruments and real assets and their effective combination into portfolios. *Prerequisite: FIN 250 or FIN 360.*

FIN/ECON 372. International Finance and Payments. 3 credits.
Offered fall and spring.
Examines international financial markets, instruments and institutions; determination of spot and forward exchange rates, interest arbitrage, hedging and speculation; and alternative policies for achieving equilibrium in international payments. *Prerequisites: ECON 201 and GECON 200.*

FIN 375. Madison Investment Fund Management. 3 credits. *Offered fall.*
The course is an accelerated introduction to the investment environment with a focus on fundamental analysis of stocks, overlay strategies to enhance portfolio performance, and familiarization with the trading and pricing of the wide variety of instruments in the modern financial marketplace. The course is limited to members of the Madison Investment Fund. *Prerequisite: Instructor permission with membership in the Madison Investment Fund.*

FIN 380. Elemental and Derivative Securities Analysis. 3 credits.
Offered fall and spring.
This course undertakes an in-depth examination of the broad array of financial instruments traded in contemporary finance markets, which are available for financing, investing and managing financial price risk. *Prerequisite: FIN 250 or FIN 360.*

FIN/MATH 395. Mathematical Finance. 3 credits. *Offered once a year.*
This course presents an overview of the role of mathematical concepts in financial applications. Topics include continuous time finance, optimization, numerical analysis and applications in asset pricing. *Prerequisites: MATH 237 and FIN 380.*

FIN/MATH 405. Securities Pricing. 3 credits. *Offered once a year.*
A quantitative treatment of the theory and method of financial securities pricing to include an examination of closed form pricing models such as the Black-Scholes and its various derivatives as well as numerical solution techniques such as binomial methods. *Prerequisite: FIN/MATH 395.*

FIN 416. Seminar in Real Estate Investment and Development. 3 credits.
An investigation of the investment process in real assets with emphasis on investment profitability. The real estate investment cycle is examined in detail to determine the sources of cash flow to the equity investor and how those cash flows may be maximized. *Prerequisite: FIN 370.*

FIN 450. Financial Risk Management. 3 credits. *Offered once a year.*
Forward contracts, futures, swaps and options are treated as the basic building blocks for creating financial risk management programs for companies subject to financial risks such as changes in exchange rates, commodity price fluctuations and changes in interest rates. *Prerequisites: FIN 371 and FIN 380.*

FIN 455. International Financial Management. 3 credits. *Offered fall.*
This course focuses on the financial decisions facing the multinational firm. Particular emphasis is placed upon global financial markets and instruments, exchange-rate risk management and asset-liability management in an international environment. *Prerequisite: FIN 365 or FIN/ECON 372.*

FIN 460. Commercial Banking. 3 credits.
A study of the objectives, functions, policies, organizational practices and government regulation of commercial banks. An intensive study is undertaken of the asset and liability structure of commercial banks. Special emphasis is placed on how banks are adapting to the dramatic changes in their operating and regulatory environments. *Prerequisite: FIN 360.*

FIN/MATH 465. Seminar in Actuarial Science I. 3 credits.
The course covers the theory and application of contingency mathematics in the areas of life and health insurance and annuities from both a probabilistic and deterministic approach. Together with FIN/MATH 466, the two-course sequence helps to prepare the student for the professional actuarial examinations. *Prerequisite: FIN/MATH 395 or consent of instructor. Prerequisite or corequisite: MATH 426.*

FIN/MATH 466. Seminar in Actuarial Science II. 3 credits.
A continuation of FIN/MATH 465 with additional coverage of contingency mathematics in the areas of life and health insurance, annuities, pensions and risk theory from both a probabilistic and deterministic approach. The two-course sequence helps to prepare the student for the professional actuarial examination. *Prerequisite: FIN/MATH 465. Prerequisite or corequisite: MATH 427.*

FIN 471. Advanced Topics in Investments. 3 credits.
Application of investment concepts within a case format. The course focuses on investment management, bringing together economics, capital markets and valuation to form a basis for decision making in financial asset selection, risk/reward analysis, portfolio selection and formation. *Prerequisite: FIN 371.*

FIN 475. Financial Modeling and Risk Analysis. 3 credits.

This course will introduce students to practical methods used to identify, quantify, predict, value, diversify and manage risk in the financial environment. Students will use sensitivity analysis, Monte Carlo and Latin Hypercube simulations, bootstrapping, time series forecasting and dynamic optimization techniques as applied to capital budgeting and structure, pro forma financial statements, multi-objective portfolio allocation, discounted cash flow analysis and real options. *Prerequisite: FIN 365 and FIN 371.*

FIN 480. Seminar in Financial Engineering. 3 credits. *Offered once a year.*

Financing engineering is the process of adapting existing financial instruments and developing new ones to meet the needs of participants in domestic and international financial markets. This process is taught within a case and project format in order to simulate actual market participation as closely as possible. *Prerequisite: FIN/MATH 405.*

FIN 488. Advanced Financial Policy. 3 credits. *Offered fall and spring.*

The financing of a new business enterprise or expansion and the financial condition of existing firms is examined within a case format. The objective of this examination is to elicit a policy decision which effectively addresses the issues identified in the case. *Prerequisites: Open only to finance majors who have completed 105 hours.*

FIN 490. Special Studies in Finance. 1-3 credits. *Offered fall and spring.*

Designed to give capable students in finance an opportunity to complete independent study under faculty supervision. Admission by recommendation of the instructor and permission of the director. Forms may be obtained in the department office before registration.

FIN 494. Business Internship. 3 credits.

Elective for finance majors offered only during summer between junior and senior year. Students must apply to internship coordinator by the deadline and will obtain credit only if pre-approved by the coordinator prior to the start of the internship. Application deadline will be enforced. See <http://www.jmu.edu/finance> for application and information. *Prerequisites: Minimum GPA of 2.5, application received by the application deadline and approved by the internship coordinator prior to the beginning of the internship.*

FIN 498. Special Topics in Finance. 3 credits.

The purpose of this course is to provide an opportunity for students to explore areas of current topical interest or to exploit special situations. Course content will vary. For current course content, consult your adviser. *Prerequisites: FIN 250 or FIN 360.*

FIN 499. Honors. 6 credits. Year course. *Offered fall and spring.*

See catalog description entitled "Graduation with Distinction" and "Graduation with Honors."

Foreign Language

Department of Foreign Languages, Literatures and Cultures**FL 267. The Literature of Opera in Translation.** 3 credits. *Offered fall and spring.*

A survey of the literature of opera from the 17th century to the present. All lectures and readings are in English.

FL 309. Civilization: Travel-Study.** 1-3 credits. *Offering varies.*

A directed program of travel-study designed to augment a student's knowledge of a particular civilization. Arrangements must be made with the faculty member designated by department head. Permission of the department head is required prior to enrollment in the program.

FL 446. Special Topics in Linguistics, Literature or Civilization.**

1-3 credits. *Offered fall and spring.*

Study of a particular topic in linguistics, literature or civilization. May be taught in English or in the language but cannot be counted for major, minor or licensure unless taught in the language. Course may be repeated. *Prerequisite: Permission of the instructor.*

FL 490. Special Studies in Foreign Languages.** 1-4 credits each semester. *Offered fall and spring.*

Allows superior students an opportunity to complete independent studies under faculty supervision. Work may be done in all languages offered in the department but may not replace course offerings. *Prerequisite: Permission of the department head.*

FL 499.1 Honors. 6 credits. *Offered fall and spring.*

**These courses are taught in the various languages offered by the department. The title of the course will designate the specific language studied.

French

Department of Foreign Languages, Literatures and Cultures**FR 101-102. Elementary French (4, 1).** 4 credits each semester. *Offered fall and spring.*

The fundamentals of French through listening, speaking, reading and writing. Practice in pronunciation and development of comprehension. One hour's work a week in the language laboratory.

FR 109. Accelerated Review of Elementary French (3, 1). 3 credits.

Offered fall and spring.

Reviews elementary French grammar, reading, writing, speaking and listening skills in French. One hour's work a week in the language laboratory. For students who have had no more than two or three years of French in high school or qualify through the placement exam. *Prerequisite: Permission of the department head.*

FR 111-212. Intensive French. 6 credits each semester. *Offered May and summer.*

The fundamentals of French through listening, speaking, reading and writing. The first semester is the equivalent to FR 101-102 and the second is the equivalent to FR 231-232.

FR 231-232. Intermediate French. 3 credits each semester. *Offered fall and spring.*

A thorough review of grammar, vocabulary building, conversation, composition and reading. *Prerequisite: One year of college French or equivalent.*

FR 266. French Literature in Translation. 3 credits. *Offered fall and spring.*

French literature, 1800 to the present. All lectures and readings are in English. Does not count toward a major, minor or licensure in French.

FR 300. French Grammar and Communication. 3 credits. *Offered fall and spring.*

Intensive training in grammatical structures and their application to oral and written communication. Instruction is in French. Fulfills the College of Arts and Letters writing-intensive requirement for the major. *Prerequisite: FR 232 or equivalent.*

FR 307. History of French Civilization. 3 credits. *Offered fall and spring.*

A study of the social, economic, political and artistic development of France from the Middle Ages to 1900. Instruction is in French. *Prerequisite: FR 300.*

FR 308. Contemporary French Civilization. 3 credits. *Offered fall and spring.*

A study of French life and culture with emphasis on France in the 20th century. Instruction is in French. *Prerequisite: FR 300.*

FR 315. French Phonetics. 3 credits. *Offered fall and spring.*

Intensive drill in French sounds and intonation patterns. Instruction is in French. *Prerequisite: FR 300.*

FR 320. French Oral and Written Communication. 3 credits. *Offered*

fall and spring.

Intensive training in the use of modern, everyday French with emphasis on conversation and composition. Readings in French will provide a context for discussion and writing. *Prerequisite: FR 300 or equivalent.*

FR 330. Business French. 3 credits. *Offered fall and spring.*

A study of commercial and technical vocabulary and trade customs in conjunction with practice in the art of commercial communication including interviews, letter writing and simultaneous interpretation. Instruction is in French. *Prerequisite: FR 320.*

FR 335. Introduction to French Literature. 3 credits. *Offered fall and spring.*

A study of the main literary schools from Classicism to the Nouveau Roman. Textual analysis of sample writings representative of the most important literary movements. Instruction is in French. Required for majors. *Prerequisite: FR 320.*

FR 339. A Survey of French Literature. 3 credits. *Offered fall and spring.*

339A: A thorough analysis of selected passages from important authors of the Middle Ages and the Renaissance. *Prerequisite: FR 320.*

339B: A thorough analysis of selected passages from important authors of the 17th century. *Prerequisite: FR 320.*

339C: A thorough analysis of selected passages from important authors of the Age of Enlightenment. Instruction is in French. *Prerequisite: FR 320.*

FR 400. Advanced Conversation. 3 credits. *Offered fall and spring.*

Discussions deal with topics of current interest. *Prerequisite: FR 320.*

FR 405. Nineteenth-Century French Literature. 3 credits. *Offered fall and spring.*

405A: French literature of the first half of the 19th century with special emphasis on the works of Hugo, Lamartine, Vigny and Musset. *Prerequisite: FR 320.*

405B: French literature of the second half of the 19th century with special emphasis on the works of Balzac, Stendhal, Flaubert and Zola. Instruction is in French. *Prerequisite: FR 320.*

FR 420. Advanced Genre Studies. 3 credits. *Offered fall and spring.*

420A: A study of French theatre from the Middle Ages to the 20th century. *Prerequisite: FR 320.*

420B: A study of French poetry from the Middle Ages to the 20th century. *Prerequisite: FR 320.*

420C: A study of French narrative fiction from the Middle Ages to the 20th century. Instruction is in French. *Prerequisite: FR 320.*

FR 425. Twentieth-Century French Literature. 3 credits. *Offered fall and spring.*

425A: A study of the works of major French writers of the first half of the 20th century. *Prerequisite: FR 320.*

425B: A study of contemporary French novels written since 1950 with the emphasis on current fiction. Instruction is in French. *Prerequisite: FR 320.*

FR/ENG 435. Studies in French Literature. 3 credits. *Offered fall and spring.*

A study of selected works of French literature. Instruction is in English. May be repeated for credit when course content changes.

FR 440. Stylistics and Translation. 3 credits. *Offered fall and spring.*

An intensive course in writing and translation from and into English and French. Contemporary topics taken from various fields. Comparative terminology. *Prerequisite: FR 320.*

FR 446. Special Topics in Linguistics, Literature or Civilization.

3 credits. *Offered fall and spring.*

Study of a particular topic in French linguistics, literature or civilization. May be taught in English or in the language but cannot be counted for the major, minor or licensure unless taught in the language. *Prerequisite: FR 320.*

FR 465. French Cinema 1930-1980. 3 credits. *Offered fall and spring.*

A study of French cinematography from 1930 to 1980. Emphasis given on the following directors: Renoir, Pagnol, Carné-Prévert, Cocteau, Vadim, Chabrol, Resnais, Godard, Rohmer, Lelouch, Truffaut and Malle. Instruction is in French. Counts as a culture course, not as a literature course. *Prerequisite: FR 320.*

FR 466. Contemporary French Cinema. 3 credits. *Every other spring, starting spring 2007.*

A study of French cinema from the 1990s until the present and its place in contemporary French culture. The course will focus on films dealing with specific moments or events in French history, as well as the evolution of the French film industry. Films to be analyzed in terms of their socio-political context and judged by their cultural perspective. *Prerequisite: FR 320.*

General Education

The Human Community

GAFST 200. Introduction to Africana Studies. 3 credits.

An introductory survey of basic theoretical concepts to analyze the Black experience, with special focus on the general historical process common to Africa and the African Diaspora.

GAMST 200. Introduction to American Studies. 3 credits

This interdisciplinary course will highlight the student's role in interrogating the cultural and political function of representations of America in literature, history, philosophy, religion, popular culture, music and art. Students will gain an understanding of why definitions of American identity matter and learn about the contemporary debates that inform the discipline of American Studies today. Questions about the changing role of national studies in the face of globalization are central.

GANTH 195. Cultural Anthropology. 3 credits.

An introduction to the nature of culture and its relationship to language, economics, politics, kinship and other institutions in diverse cultures. The course also provides an overview of the theories, methods and ethical responsibilities involved in the study of cultural systems and ethnographic writing.

GANTH 196. Biological Anthropology. 3 credits (B,R).

An introduction to the origins, evolution and genetic variability of humans and their relationship to nonhuman primates. Examination of the fossil record, the relationship between biology and culture and human genetics are included. Theories and methods used in the study of biological anthropology are also introduced. Formerly *GSCI 116*. Students may not receive credit for both *GANTH 196* and *GSCI 116*.

GART 200. Art in General Culture. 3 credits.

An exploratory course which aims to develop a non-technical, general, cultural understanding of the space arts, such as architecture, painting, sculpture and industrial design. Emphasis is on the contemporary.

GARTH 205. Survey of World Art I: Prehistoric to Renaissance. 3 credits.

An introduction to the art and architecture of the world from cave painting through European pre-Renaissance art. Includes ancient through medieval art in Europe and the Near East as well as Asian and African arts.

GARTH 206. Survey of World Art II: Renaissance to Modern. 3 credits.

An introduction to the art and architecture of the world from the Renaissance through Modern ages. Includes European Renaissance, Baroque, Enlightenment, 19th and 20th centuries as well as Asian and African arts.

***ASTR 120. The Solar System.** 3 credits. *Offered once a year.*

An introductory course in astronomy, which includes the following topics: motions of celestial objects, eclipses, historical development, the nature of light, telescopes, properties and evolution of the solar system.

***ASTR 121. Stars, Galaxies and Cosmology.** 3 credits. *Offered once a year.*

An introductory course in astronomy which includes the following topics: the Sun, stellar properties, stellar evolution, black holes, the Milky Way, galactic evolution, quasars, cosmology.

GBIO 103. Contemporary Biology (3, 0). 3 credits.

An in-depth exploration of selected biological concepts, connected to current, relevant topics and emphasizing an understanding of science as a way of obtaining knowledge. Not available for major or minor credit in biology. Formerly *GSCI 103*. Students may not receive credit for both *GSCI 103* and *GBIO 103*.

GBUS 160. Business Decision Making in a Modern Society. 3 credits.

This course introduces the concepts of basic technology literacy, information retrieval via electronic and hard copy; along with critical thinking skills. Basic business principles will be introduced to reinforce these concepts and their relationships. The course provides opportunity for applying the skills of oral and written communication to a variety of learning activities. *Open to students who have not completed COB 300.*

GCOM 121. Fundamental Human Communication: Presentations.

3 credits.

Study of human communication as a process. Overview of the principles and practices of interpersonal, small group and public communication. Emphasis on examining the role of self-concept, perception, culture, verbal and nonverbal dimensions in the communication process, using power and managing conflict, applying critical listening, practicing audience analysis within informative speech making. Public speaking required.

GCOM 122. Fundamental Human Communication: Individual

Presentations. 3 credits.

Study of human communication as a process. Overview of the principles and practices of communication in a public environment. Emphasis on examining the role of self-concept, perception, culture, verbal and nonverbal dimensions in the communication process, using power and managing conflict, applying critical listening, practicing audience analysis, and constructing informative and persuasive speeches. Public speaking required.

GCOM 123. Fundamental Human Communication: Group Presentations.

3 credits.

Study of human communication as a process. Overview of the principles and practices of communication in small group and public communication contexts. Emphasis on examining the role of self-concept, perception, culture, verbal and nonverbal dimensions in the communication process, using power and managing conflict, applying critical listening, practicing audience analysis, and constructing informative and persuasive group presentations. Public speaking required.

GECON 200. Introduction to Macroeconomics. 3 credits.

Behavior of systems at the national and international levels. Topics include the methodology of economics as a social science, supply and demand, definition and measurement of important macroeconomic variables, and theoretical models of growth, inflation, interest rates, unemployment, business cycles, stabilization policy, exchange rates and the balance of payments. Not open to students who are enrolled in or who have received credit for *ECON 332*.