COURSES DESCRIPTIONS

Courses designated with an asterisk (*) are not offered regularly. Please check with the adviser or with the division director/chair before making course selections.

IDENTIFYING GENERAL-EDUCATION COURSES
In the Course Descriptions section of this catalog that follows, each course that may be used to satisfy a general-education requirement is designated using the following coding system (codes are in [BOLD]):

WRIT  English Composition
MATH  Mathematics

Arts and Humanities
ENGL  Literature
CMAT  Oral Communication
HIPL  History or Philosophy
ART   Fine Arts
SOSC  Social and Behavioral Sciences
GSCI  Biological and Physical Sciences

Interdisciplinary and Emerging Issues
COSC  Computer Literacy

For further information about the University’s general education, see the University-Wide Degree Requirements section of this catalog as well as the description of your degree program.

Other courses may have been designated as meeting general-education requirements since the printing of this catalog; please contact your academic adviser for more information.

ACCOUNTING (ACCT)
Accounting courses (ACCT) are offered by the Merrick School of Business.

ACCT 201 Introduction to Financial Accounting (3) A comprehensive study of basic financial accounting processes applicable to a service, merchandising and manufacturing business. An analysis of transactions, journalizing, posting, preparation of working papers and financial statements.

ACCT 202 Introduction to Managerial Accounting (3) An introductory study of managerial accounting processes including job order costing, process costing, cost-volume-profit analysis, standard costs, activity-based costing, cost analysis, budgeting and managerial decision making. Prerequisite: ACCT 201 or equivalent with a minimum grade of C
ACCT 301 Intermediate Accounting I (3) A study of financial accounting standard setting, the conceptual framework underlying financial accounting, balance sheet and income statement presentations, revenue and expense recognition and accounting for current assets and current liabilities. prerequisite: ACCT 202 or equivalent with a minimum grade of C

ACCT 302 Intermediate Accounting II (3) A continuation of the study of financial accounting standards with emphasis on accounting for investments, dilutive securities, long-term liabilities, fixed assets, intangible assets, stockholders’ equity and earnings per share. prerequisite: ACCT 301 with a minimum grade of C

ACCT 306 Cost Accounting (3) A study of cost behavior, overhead cost allocations and cost systems design and an introduction to activity-based costing and control systems. Emphasis is on case studies and other practical applications. prerequisite: ACCT 202 or equivalent with a minimum grade of C

ACCT 310 Intermediate Accounting III (3) The third course in a three-course sequence for accounting majors. A comprehensive view of financial accounting concepts and principles; an intensive look at the nature and determination of the major financial statements; and an examination of current accounting practice, theory and literature of computerized and noncomputerized systems. Topics include income taxes, pensions and post-retirement benefits, leases, accounting changes, error analysis and statement of cash flows. prerequisite: ACCT 302 or equivalent with a minimum grade of B-

ACCT 317 Accounting Information Systems (3) A study of fundamental accounting system concepts, the technology of accounting systems, file processing and databases, the utilization of accounting system technology, accounting system applications, the internal control of accounting information and the development and operation of accounting systems. Projects use manual and computer-based transaction processing systems. prerequisite: prior or concurrent enrollment in ACCT 301

ACCT 401 Auditing (3) A study of Generally Accepted Auditing Standards and other standards. Topics covered include professional standards, professional ethics, audit planning, internal control, audit evidence, completing the audit, audit reports and standards for different assurance and nonassurance services. prerequisite: ACCT 317 and prior or concurrent enrollment in ACCT 302

ACCT 402 Seminar in Assurance Services (3) A study of auditing and other assurance services with an emphasis on the world of auditing that exists outside of the college textbook. Special emphasis is given to legal liability, statistical sampling, audits of SEC registrants, research using the AICPA auditing database and other assurance services. A case study approach is used to attempt to create a realistic view of how an auditor organizes and carries out an audit examination. prerequisite: OPRE 202 and ACCT 401 or equivalent with a minimum grade of C

ACCT 403 Advanced Financial Reporting (3) A study of business combinations and the preparation of consolidated financial statements for consolidated enterprises, fund-type accounting for governmental
units and not-for-profit entities, accounting for partnerships and accounting for multinational enterprises. prerequisite: ACCT 302 or equivalent with a minimum grade of B-

**ACCT 405 Income Taxation (3)** A study and analysis of the federal income tax structure with emphasis on the taxation of individuals. Topics include income determination, deductions, property transactions, credits and procedures, and an introduction to corporation and partnership taxation, tax planning and ethical issues. prerequisite: ACCT 202 or equivalent with a minimum grade of C

**ACCT 406 Advanced Taxation (3)** A continuation of the study of the federal income tax structure with emphasis on the taxation of business entities, including corporations, partnerships and entities taxed as partnerships and S corporations. The course also introduces gift and estate taxes and income taxation of estates and trusts. prerequisite: ACCT 405 or equivalent

**ACCT 411 Seminar in Accounting (3)** A detailed study of current problems and contemporary developments in accounting literature, reports and bulletins, and a review of financial accounting theory as it relates to current accounting practices. prerequisite: ACCT 302 or equivalent with a minimum grade of C

**ACCT 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

**ACCT 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

**ACCT 495 Accounting Internship (3)** Provides students with real-world accounting experience. The course requires approximately 175 hours of practical work with a qualified firm based on explicit statements of student responsibilities and faculty/firm monitoring mechanisms. Students will work closely with both the firm and a faculty member. It is recommended that students complete an internship in their junior year. prerequisites: completion of 9 semester hours of accounting with a minimum GPA of 3.0. Completion of MGMT 330 is recommended. Permission of the instructor is required.

**ACCT 497 Special Topics in Accounting (3)** The accounting faculty, from time to time, offer an opportunity to integrate new material into the undergraduate program reflecting changes in the field
and in the educational needs of students. prerequisites: ACCT 301 or equivalent with a grade of C or better or instructor permission

ACCT 499 Independent Study: Accounting (1-3) An in-depth study of a specific accounting topic performed on an independent basis by the student under the direction of a faculty member. Completion of a major paper as part of the independent study is required. For eligibility and procedures, see the Merrick School of Business Independent Study Policy.

ANTHROPOLOGY (ANTH)
Anthropology courses (ANTH) are offered by the Division of Science, Information Arts and Technologies in the Yale Gordon College of Arts and Sciences.

ANTH 110 Cultural Anthropology (3) Provides an introduction to the field of cultural anthropology, the study of human cultural variation throughout the world, both past and present. This course focuses on the general concepts of anthropology as a discipline, the evolution and structure of human social groups, and in-depth culture description and cross-cultural comparison involving both past and extant societies. [SOSC/QQT/GIK]

ANTH 115 Human Origins (3) An introduction to physical anthropology and archaeology, two subdisciplines within the field of anthropology. Physical anthropology has two major objectives: the reconstruction of the evolutionary history of Homo sapiens and the study of human genetic, anatomical and physiological diversity. Archaeology is devoted to the study of the life ways of past peoples through the examination of cultural remains. [SOSC/QQT/GIK]

ANTH 222 Human Environmental Adaptations (3) Examines the various ways humans adapt culturally to their physical and biological environments. Societies of a variety of time periods and levels of complexity are studied. Many different types of habitat and settlement are considered, from tropical rain forests to arctic zones, small villages to cities. The impact human societies have on their environments is an important theme in class lectures and discussions.

ANTH 252 Archaeological Research Methods (4) Provides in-depth exposure to the methods anthropological archaeologists use as they learn about past cultures and disseminate the knowledge they acquire; these include field surveys, excavations, artifact analyses, quantitative techniques, reporting and literature reviews. Subject matter is presented as lectures, discussion of case studies and hands-on laboratory exercises.

ANTH 295 Historical Archaeology (3) Deals broadly with anthropological archaeology as it applies to cultures with written records. Students receive an introduction to the methods and analytical techniques that historical archaeologists use to learn about past literate societies. Issues related to the European colonization of the New World, gender, ethnicity, slavery and the development of the capitalist system figure prominently in course material. [SOSC/QQT]
ANTH 320 Forensic Anthropology (4) Explores the methods and concepts of the fields of physical anthropology and human osteology as they relate to the criminal justice system. Formal lectures and the discussion of case studies provide a terminological, conceptual and theoretical foundation. Through laboratory exercises, students gain a general understanding of the identification of human remains and causes of death, including the determination of sex, age, evidence of trauma and time of death. Lab fee required.

ANTH 365 Human Population Dynamics (3) Examines the effects of fertility, mortality and migration on the size and structure of human populations. An anthropological focus is used to link demography to cultural attributes, such as economy, religious practices, education, marriage, gender and class. Environmental issues as they relate to the growth of human populations are important themes.

ANTH 410 Cultural Resource Management (3) Involves the broad study of cultural resources, which include both material aspects of culture—such as historical structures and artifacts—and nonmaterial cultural manifestations—such as music, dance and folklore. Students are introduced to the issues surrounding the preservation of cultural heritage. The legal and business management aspects of cultural resource management as it relates to archaeology form an important component of coursework.

ANTH 440 Anthropological Theory (3) Deals broadly with the evolution of anthropological thought from the 19th century to today, including the areas of cultural evolution, gender, Marxism, political economy, ethnicity, agency, social justice, social structure, symbolism and cultural materialism. Coursework combines formal lectures with group discussions of assigned readings.

ANTH 488 Special Topics in Anthropology (3) An intensive study of an issue or set of related issues in the discipline of anthropology. Content varies depending upon the interests of faculty and students. Course may be repeated for credit when the topic changes.

ANTH 490 Internship in Cultural Resource Management (3-4) Provides students majoring in Applied Anthropology the opportunity to gain hands-on experience working with nonprofit institutions, government agencies or private firms associated with cultural resource management. Course is eligible for continuing studies grade.

ANTH 499 Special Projects in Anthropology (3) Capstone experience for Applied Anthropology majors; involves the implementation of a research project under the supervision of a faculty member. Work may include primary research, a review paper or another type of scholarly research product. Course is eligible for a continuing studies grade. prerequisite: permission of division chair
FINE ARTS (ARTS)
Fine Arts courses (ARTS) are offered by the Klein Family School of Communications Design in the Yale Gordon College of Arts and Sciences. Related courses are listed under Communication (CMAT).

ARTS 101 Music & Arts as Craft (3) Examines the creative connections among individual imagination, artistic creation, audience reception and financial considerations, looking at the creative processes of artists such as Michelangelo, Mozart and Jackson Pollock as examples of the complex, often laborious and always evolving efforts that result in great works of art. Students talk with working artists, composers, conductors and collectors in the Baltimore area. [ART/HAT]

ARTS 121 World Music (3) Equips students to understand diverse world cultures through the lens of those cultures’ musical lives. Students develop skills in listening perception and cultural analysis while focusing on musical traditions from Africa, Central Europe, Native American communities, Latin America, India, Indonesia and Japan. The course also presents music’s basic structural elements and descriptive terminology. [ART/HAT]

ARTS 201 The Arts in Society (3) An overview of the role that individual artistic expression and group artistic movements have played throughout history, with a focus on the individual and the arts, economics and the arts, and politics and the arts. [ART/HAT]

ARTS 202 Technology in the Arts (3) An exploration of ways that technology has shaped the arts throughout history, that artists have appropriated and responded to technology, that technology facilitates management of the arts and that emerging technologies continue to influence the arts.

ARTS 230 The Art of Film (3) A study of film as an art form. Course considers film as an artifact, made in particular ways and having a certain style and structure. Emphasis is placed on the ways film represents space and time. Laboratory fee required.

ARTS 288 Independent Study: Analysis (3) Consideration and completion of a special project in the arts. Each student works closely with a faculty member who helps to set goals, develop a course plan and guide progress. Projects vary with individual student interests. prerequisite: permission of the division chair

ARTS 289 Independent Study: Production (3) Consideration and completion of a special design, video or other production-oriented project in the arts. Each student works closely with a faculty member who helps to set goals, develop a course plan and guide progress. Projects vary with individual student interests. Laboratory fee required. prerequisite: permission of the division chair

ARTS 297 Topics in the Arts I (3) Intensive exploration of topics in the arts of mutual interest to students and faculty. The topic of study appears under that name in the class schedule. Laboratory fee may be required. [ART/HAT]
ARTS 298 Topics in the Arts II (3) Intensive exploration of topics in the arts of mutual interest to students and faculty. The topic of study appears under that name in the class schedule. Laboratory fee may be required.

ARTS 351 The Business of Being an Artist (3) A hands-on examination of the practical skills that are required to make a living as a professional creative artist in context of the 21st-century U.S. workforce. Topics include intellectual property, artists’ agents and managers, entrepreneurial uses of the Web, leveraging social and new media, fundamentals of self-employment, grant-writing basics and complementary career tracks.

ARTS 352 Essentials of Arts Management (3) Provides a broad-based view of the business of running a nonprofit arts organization in the context of the current economic environment, including grant writing, bookkeeping, marketing and management issues, event promotion and board development. prerequisite: ARTS 201

ARTS 397 Topics in Integrated Arts (3) Intensive exploration of arts-related topics. Content varies according to the concurrent interests of faculty and students. Specific topic is listed in the schedule of classes. Course may be repeated for credit when topic changes. prerequisite: none unless listed in the class schedule

ARTS 475 Internship in Integrated Arts (3) Students apply skills and knowledge from coursework to jobs in the field of arts management or performance. Interns will meet periodically as a group to share experiences and discuss problems and successes. Eligible for continuing studies grade; otherwise, grading: pass/fail. prerequisites: senior status and permission of the program director

ARTS 476 Seminar in Integrated Arts (3) Senior-level capstone seminar required of all Integrated Arts majors. Through completion of a major project, a final paper and class discussion, students will demonstrate their knowledge and skills related to the role of the arts in society; the interaction of technology and the arts; and the integration of arts production, analysis and management. prerequisite: ARTS 475

ARTS 489 Independent Study in Integrated Arts (3) Consideration and completion of a special project in the area of arts management. Each student works closely with a faculty member who helps to set goals, develop a course plan and guide progress. Projects vary with individual student interests. prerequisite: permission of the program director

ARTS 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director
ARTS 494 Honors Project (3) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Eligible for continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

BIOLOGY (BIOL)
Biology courses (BIOL) are offered by the Division of Science, Information Arts and Technologies in the Yale Gordon College of Arts and Sciences. Related courses are listed under Chemistry (CHEM), Environmental Science (ENVS) and Physical Science (PHSC).

BIOL 101 Humankind and the Biological World (3) Deals in a broad sense with how humans interact with, affect and are affected by other organisms. Presents an overview of the history of scientific thought, including important persons, shifts in philosophy and technological innovations. Pathogenic organisms, genetic predisposition and natural immunity to disease, as well as disease treatments and cures are discussed. Addresses the ways that human activities such as hunting, commercial fishing and deforestation have had an impact on other life on Earth. [GSCI/QQT]

BIOL 111 Human Biology (4) Provides an overview of the structure and essential processes of the human body, including digestion, blood circulation, and the brain and senses. Human evolution, reproduction, early development and aging, and immunity to disease are discussed. The laboratory component of the course focuses on the design, practice and reporting of science. It includes exercises and experiments dealing with light microscopy, cell biology, genetics, and human anatomy and physiology. Laboratory fee required. [GSCI/QQT]

BIOL 121 Fundamentals of Biology (4) Introduction to the diversity of life on Earth. Cell structure, reproduction and chemistry are discussed. Provides an overview of the evolution, physiology and ecology of animals, plants and microbial life, including the impact of human behavior on ecosystems. The laboratory component of the course focuses on the design, practice and reporting of science. Laboratory exercises and experiments include an introduction to light microscopy; cell division; genetics; cellular respiration; photosynthesis; environmental science; and the examination of bacterial, botanical and zoological specimens. Laboratory fee required. [GSCI/QQT]

BUSINESS LAW (BULA)
Business Law courses (BULA) are offered by the Merrick School of Business.

BULA 151 Business Law I (3) A basic study of the judicial system, contracts, agency, fraud, sale of personal property, warranties, transfer of title and legal remedies.
BULA 251 Business Law II (3) A detailed study of the law of bailments, public carriers, negotiable instruments, secured transactions, real property, personal property, landlord and tenant rights and obligations, real estate mortgages, wills and estate of descendants, trusts, insurance, suretyship, guaranty, bankruptcy and labor law. Representative CPA law questions are reviewed and discussed. Note: Business Law II cannot be substituted for a 300- or 400-level business or management elective. prerequisite: BULA 151

CHEMISTRY (CHEM)
Chemistry courses (CHEM) are offered by the Division of Science, Information Arts and Technologies in the Yale Gordon College of Arts and Sciences. Related courses are listed under Biology (BIOL), Environmental Science (ENVS) and Physical Science (PHSC).

CHEM 101 Chemistry and the Modern World (3) Focuses on the relationship between people and chemistry. Introduction to the fundamentals of chemistry, including the nature of matter and energy, atomic structure and chemical bonds. Addresses such subjects as the characteristics and makeup of the compounds that power automobiles and heat homes, the drugs that alleviate pain or ease depression, and the foods eaten to provide the components of the life-sustaining processes of the human body. [GSCI/QQT]

COMMUNICATION (CMAT)
Communication courses (CMAT) are offered by the Klein Family School of Communications Design in the Yale Gordon College of Arts and Sciences. Related courses are listed under Computer Science (COSC), Literature (ENGL), Writing (WRIT), Marketing (MKTG), Management (MGMT) and graduate Publications Design (PBDS).

CMAT 130 Baltimore in the Media (3) A study of the image of Baltimore through the lens of the media. Students analyze narrative and non-narrative films, television programs, books, short stories, websites, newspapers, magazines and blogs to gain a greater understanding of where they live and the city’s evolution from the eyes of those who record and promote its happenings. Laboratory fee may be required. [ART/GIK]

CMAT 201 Communicating Effectively (3) Introduction to oral communication: interpersonal, small group and public speaking. Emphasis on accurately transmitting information, using effective strategies for informing and persuading, using effective communication techniques to work with others, and feeling at ease in front of an audience. Laboratory fee required. [CMAT/COM]

CMAT 207 Practicum in Communication (3) Applied learning experience tailored to each student’s academic and career interests. Students gain applied work experience in a communication-related field. Grading: pass/fail. prerequisite: permission of the program director
CMAT 211 Computer Graphics: Publishing (3) Introduction to page layout/design, illustration and presentation software. Students learn layout and design graphics for print publication and screen presentation. Laboratory fee required. Prerequisite: working knowledge of MacOS

CMAT 212 Computer Graphics: Imaging (3) Introduction to Web design and digital imaging software. Students create simple websites and process photographs for print and Internet/television distribution. Laboratory fee required. Prerequisite: working knowledge of MacOS

CMAT 215 Introduction to Design (3) Introduces the basic principles of design—contrast, repetition, alignment and proximity—and applies them through a series of assignments. Students examine the work of famous designers, along with important design styles of the 19th and 20th centuries. Other topics include color theory, grids and the design process. [ART/CTE]

CMAT 216 History of Graphic Design (3) Introduction to the history of graphic design. Addresses the difference between art and design and the role both play in design’s evolution. Areas of emphasis include historical periods, key movements, typography, significant events and pre-eminent designers. [ART/CTE]

CMAT 231 Decoding Media (3) Helps students develop a vocabulary and techniques for analyzing images and sounds: movies, ads, photographs, websites and more. Examines composition, color, sequencing, animation and sound and specifically how those elements alter meaning. [ART/CTE]

CMAT 271 Interpreting Pop Culture (3) Examines various elements that define popular culture, among them the mass media, sports, fashion, restaurants and food, architecture, amusement parks and religion. Students look at ways that pop culture institutions and products both shape and reflect the larger culture. [ART/CTE]

CMAT 296 Topics in Speech Communication (3) Intensive exploration of topics in speech communication. The topic for study appears in the class schedule. Course may be repeated for credit when topic changes. Laboratory fee required. [CMAT/COM]

CMAT 300 Public Speaking (3) A performance-oriented examination of the principles of public communication, emphasizing theory and rhetorical structure as well as presentation. Includes critiqued in-class practice of a variety of speech forms and strategies. Laboratory fee required.

CMAT 303 Oral Communication in Business (3) Extensive practice in presentational speaking, briefing techniques, the mechanics and dynamics of group meetings and the development of interviewing, critical listening and interpersonal communication skills. Laboratory fee required. [CMAT/COM]

CMAT 320 Argumentation, Debate & Society (3) Issue analysis, evidence evaluation, critical reasoning and counter advocacy. The principles of argumentation and debate are applied through student
presentations and critical observation of contemporary debate in legal and legislative bodies. Laboratory fee required.

**CMAT 333/ENGL 333 Media Genres (3)** Analysis of the patterns and conventions of a specific type of media program (e.g., Western, science fiction, situation comedy), media artist (e.g., Hitchcock, Allen, Capra) or style (e.g., film noir). Course may be repeated for credit when topic changes. Laboratory fee required.

**CMAT 334/ENGL 334 Oral Interpretation of Literature (3)** Creative reading: the transformation of the writer’s word through the reader’s voice in expository, poetic, narrative and dramatic forms. A progression from reading to analysis to interpretation to presentation. Laboratory fee required.

**CMAT 336/ENGL 336 Plays in Performance (3)** Students study dramatic values, theatrical production values and dramatic styles and then apply that knowledge through the critical analysis of area theatrical productions. Offered as needed.

**CMAT 340 Survey of Digital Communication (3)** Organizations, consumers and private individuals are flocking to digital communication, leaving traditional media behind. Through case studies, investigation and projects, this course examines the strengths and weaknesses of differences between and societal consequences of old and new media.

**CMAT 342 The Rhetoric of Digital Communication (3)** Overview of principles, strategies and techniques for intentional communication that occur within particular contexts and that influence communication choices, including audience analysis, information transfer, persuasion and associated ethical considerations. Special attention is paid to changes from traditional to electronic to digital media.

**CMAT 350 Integrated Computer Graphics (3)** Introduction to a variety of desktop publishing, graphics manipulation and presentation software and digitizing and printing hardware. Students learn to create and manipulate images and integrate graphics with text. Laboratory fee required. Students who have completed CMAT 211 and CMAT 212 may not take this course for credit.

**CMAT 352 Media Literacy (3)** An upper-level theory course that introduces students to a variety of ways of understanding the interactions between media and culture. The course examines media content and effects, media industries, cultural perceptions and notions about how meaning is constructed in these environments.

**CMAT 353 Research Methods in Digital Communication (3)** Introduction to strategies, techniques and tools useful in communication research. Students gain experience finding and evaluating sources, identifying theoretical frameworks, and understanding the strengths, weaknesses and applications of various research methodologies.
CMAT 355 Communication Theory & Learning (3) Investigation and survey of contemporary communication theories and their application to learning through current research and literature in the field. Application to designing media programs and packages to meet specific instructional needs.

CMAT 357 Principles of Design (3) An introduction to the principles of design. The course will focus on the organization of visual space, typography, paper and color choices, visual strategies and appropriate visual design choices for a variety of audiences. Laboratory fee required. Prerequisite: successful completion of Computer Graphics Competency Requirement.

CMAT 358 Digital Design (3) An introduction to interactive design principles, fundamental Web development concepts and standards-based design practices that underlie digital design production for websites. Emphasis is on how to create, manipulate and prepare HTML- and CSS-based Web pages; design effective site interfaces; make appropriate typography and image use choices for the Web; understand structural and content planning and the website development process and workflow; and increase usability and functionality for enhanced user experience on the Web. Laboratory fee required. Prerequisite: successful completion of Computer Graphics Competency Requirement.

CMAT 359 Print Production (3) Processes and strategies for moving work from the designer’s screen to the printer and finally to the audience. The course examines the business relationship between designers and print vendors, the various stages of the printing process as it relates to digital design, and budget considerations that affect design. Students learn to write print specifications and weigh the strengths and weaknesses of different printers and printing processes. Laboratory fee required.

CMAT 363/WRIT 363 Creative Writing Workshop: Screenwriting (3) Intensive writing experience for students interested in writing drama for television and film. Emphasizes characterization, dialogue and plot development as well as conventions of and script formats for television and film.

CMAT 364 Digital Photography (3) Explores creation and manipulation of both still and video images in the digital environment. Through lectures, critiques, demonstrations, picture taking and digital manipulation exercises, students learn to shoot, edit and use a variety of digital techniques to produce material for print and Web distribution. Emphasis is placed on the development of portfolio-quality pieces. Laboratory fee required.

CMAT 366 Producing Sound Portraits (3) Introduction to the art and craft of audio production. Students listen to and produce a series of short audio programs, learning the tools, techniques and aesthetics of the craft along the way.

CMAT 368 Photojournalism (3) Problems of producing and selecting photos for print and for other visual media. The relationship between text, photographs and design. Experience in preparing photo-essays that incorporate both photographs and copy. Laboratory fee required.
CMAT 369 Digital Video (3) The use of portable video equipment for producing location and small-studio nonbroadcast presentations and the planning and management of industrial video facilities. The production context is emphasized with special attention given to public-access cable, corporate and institutional uses of video. Laboratory fee required.

CMAT 371 Mass Media & Society (3) Mass media as a vital force in contemporary society. The impact of television, film, music, advertising and other media on our economic, political and social systems. Evaluation of means to effect creative solutions to social problems via media use. A study of current controversies and research. Laboratory fee may be required.

CMAT 374 Magazine Design (3) A study of design strategies, techniques and decisions for company, trade, mass-market (consumer), print and digital magazines. The course examines the contributions of various magazine departments and relationships among major staff positions. Students conceive of and design a new print or digital magazine. Laboratory fee required. prerequisite: CMAT 357

CMAT 381 Representing Reality: News & Documentary (3) Examination of the process, problems and techniques of gathering and presenting information. Moving from a historical context, the course looks at the lines between news, documentary and propaganda; the forces that shape and influence the presentation of information; difficulties in determining objectivity; and contemporary issues relating to reality programming. Balancing theory and analysis are hands-on newsgathering and production activities. Laboratory fee may be required.

CMAT 391 Public Relations Strategies (3) Students learn the strategies and tactics (traditional and digital) that public relations specialists use to build relationships, manage brand reputations and tell brand stories. These include situation and audience analysis in addition to media mix and dealing with clients. Special attention is paid to maximizing visibility via social media.

CMAT 407 Internship in Communication (3) Students apply skills and knowledge from coursework to jobs in the field of digital communication. Grading: pass/fail. Course is eligible for a continuing studies grade. prerequisites: senior status and permission of the program director

CMAT 451 Communication Technologies (3) Explores the development of communication technologies from mechanical, electrical and wired to digital, wireless and interactive. The course keeps students abreast of current practices, evolution and changes in interpersonal, mass and social media, focusing on technical development, economic and political factors, potential applications and societal impact.

CMAT 453 Media & Community/Community Media (3) An introduction to the ways that communications media shape people’s perceptions of communities, ways that citizens can use various media to change those perceptions and ways to strengthen communities through increased and broader-based communication. Students examine case studies, learn basic techniques of producing messages in a variety of media and propose solutions to problems in their own communities by utilizing those media.
CMAT 455 Hypermedia (3) An introductory survey of the many types of hypermedia, multimedia and other means of nonlinear writing now available in fiction, education and business. Combines theory and hands-on experience in the reading and composition of hypermedia and Web sites. Students explore the position of this new technology/language in contemporary culture.

CMAT 456 Multimedia Design & Production (3) The conceptualization and production of multimedia design. After studying the fundamentals of interactivity, students learn to digitize sound and video, integrate these elements with graphic design and written text, develop prototypes and examine various interactive software applications. Application of problem-solving techniques to the corporate environment and media applications. Laboratory fee required. prerequisite: CMAT 358

CMAT 457 Advanced Print Design (3) Advanced design course emphasizing the integration of typography and images in a series of projects of moderate and increasing complexity. Building on the foundation developed in CMAT 357, this course focuses on critical thinking and execution of ideas for a variety of audiences. Laboratory fee required. prerequisite: CMAT 357

CMAT 458 Project Management (3) An upper-level introduction to the skills and concepts necessary for the administration of a communications department or for the creation of a freelance business. Topics include developing a business identity, production planning and control, market and cost analysis, project proposals, estimating and billing forms and procedures, managing a real-world project, client presentations, organizational theory, legal and tax issues, and writing a business plan. prerequisite: CMAT 340

CMAT 459 Advanced Digital Design (3) Builds upon the skills and fundamental Web design concepts introduced in CMAT 358. Students learn advanced standards, techniques, and design skills and strategies for building complex websites and mobile applications. Laboratory fee required. prerequisite: CMAT 358

CMAT 469 Advanced Audio Video Production (3) Advanced techniques and experience in planning, producing and editing audio and video presentations. Laboratory fee required. prerequisite: CMAT 369 or the equivalent or permission of the instructor

CMAT 475 Media Criticism (3) Examination and application of the criteria for critically analyzing film, video and audio. Evaluation of the role of the critic and critical publications. Students compose and present critical reviews.

CMAT 480 Portfolio Development (3) After articulating their professional goals—for example, as writers, designers, videographers or public relations specialists—students determine which of the materials they have created in the past will contribute positively to their portfolios and revise and improve those pieces. They determine what additional items their portfolios need and create them from scratch. Finally, they develop strategies for applying and interviewing for professional positions. Laboratory fee required. Note: Students entering this class must have a pre-existing body of work from which to draw. prerequisite: permission of the program director
CMAT 485 Seminar in Digital Communication (3) Capstone experience for digital communication majors. Students complete a theoretical or applied project in their declared area of specialization to include the product itself, appropriate documentation and a reflective essay. They then present the work to faculty and to other students in the major. They also develop portfolios of their work and professional resumes. Laboratory fee may be required. prerequisites: completion of the Digital Communication program core (or simultaneous enrollment in final core classes), senior status and permission of the program director.

CMAT 489 Directed Independent Study (3) Consideration and completion in depth of a special topic or project in communication. Each student works closely with a faculty member who helps set goals, develop a course plan and guide progress. The project must be carefully planned and have approval of the instructor involved and the program director. prerequisite: permission of both the instructor and the program director.

CMAT 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director.

CMAT 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director.

CMAT 497 Special Topics in Communication (3) Intensive exploration of communication-related topics that are of mutual interest to faculty and students. Content varies according to the concurrent interests of faculty and students. The topic for study appears in the class schedule. Course may be repeated for credit when topic changes. Laboratory fee required. prerequisite: determined by topic.

COMMUNITY STUDIES AND CIVIC ENGAGEMENT (CSCE)
Community Studies and Civic Engagement (CSCE) courses are offered by the College of Public Affairs.

CSCE 100 Urban Solutions (3) Provides an introduction to the field of urban studies and to the practices of studying cities and metropolitan areas. Students are exposed to a variety of current and historic urban challenges as well as policy solutions. The course exposes students to the complexity of life in metropolitan regions, using the Baltimore area and other cities nationally and internationally as case studies. [SO QC G/Q/GIK/CTE]
CSCE 200 Understanding Community (3) Allows students to explore basic concepts of community: a group’s history and change over time, the lines that divide communities, the physical movement of groups, the responsibilities of individuals within the community and the role community plays in social control. Students begin to master the skills of selection and synthesis as they use historical documents, census data, community mapping, field observations, nonfiction and fiction to make observations about groups and compare their findings to the ways groups are depicted by outsiders. [SOSC/QQT]

CSCE 297 Topics in Community Studies (3) Exploration of topics in community studies and civic engagement. The topic for study appears under that name in the class schedule. Course may be repeated for credit when the topic changes.

CSCE 300 Community Studies (3) Focuses on reading the core philosophy and history of community studies and applying the abstract concepts to a number of case studies of successful problem-solving organizations. Students examine one organization in depth, analyze the issues the organization addresses, identify the assets it draws upon and evaluate the solutions it develops.

CSCE 301 Introduction to Nonprofit Leadership (3) Introduces students to personal and professional competencies relevant to careers in nonprofit organizations. Special emphasis is placed on individual and community development as the pivotal functions of nonprofit organizations and on collaboration as the central mode of public problem-solving.

CSCE 302 Fundamentals of Grant Writing (3) Provides students with a thorough grounding in the principles and practices of fundraising and grant proposal development. The course is structured to mirror the process of fundraising management and by the course’s conclusion, students will have developed a fundraising plan or a grant proposal for their own nonprofit organization or a case study of the organization. The course considers planning frameworks and a variety of conceptual tools exploring donor behaviors (the underlying psychology and sociology) and each major form of fundraising. The course concludes with an examination of the critical managerial and sectoral issues impacting fundraising functions, such as campaign integration, benchmarking of performance, and public trust and confidence.

CSCE 306 Leadership for Social Change (3) Introduces students to leadership theory and to the history and concepts of community organizing for social change. Encourages careful analysis of responsibilities and commitment in the context of leadership for the common good and for purposeful change. Students explore how to create change in society through everyday acts of leadership and by learning about their own leadership styles. Provides opportunities for practical application, documentation of leadership styles and reflection on individual responsibility for and potential in leadership roles.

CSCE 311 Social Awareness and Ethical Responsibility (3) Focuses on the relationships among ethics, public policy and business enterprise. Designed to help participants think globally about diversity and civic engagement, this course continues students’ preparation for leadership positions in a global
society. Focuses on improving personal leadership skills and on emphasizing the importance of leading consistently with the highest ethical principles and values.

**CSCE 315 Community Organizations in a Digital World (3)** Examines digital and online efforts of community organizations to build community leadership and civic engagement. Explores the ways in which information technologies have transformed and are transforming community organizations and how these technologies affect a range of social, political and economic issues from individual to organizational and societal levels. Focuses on how technological applications may provide more effective and efficient pathways for community organizations to communicate with their stakeholders and to reach their strategic goals, which include the use of social media.

**CSCE 400 Nonprofit Management (3)** Nonprofit organizations are key to the functioning of civil society. The United States has one of the world’s most vibrant nonprofit communities. In this practical skills course, students examine how to carry out the responsibilities of organizing and managing a nonprofit, with focus on organizations framed under 501(c)(3) of the Internal Revenue Code. Students explore effective mission, incorporation and vision statements; board and staff roles and relationships; ethics; budgets and fundraising; and maintaining nonprofit status. This course helps students meet a number of American Humanics competency requirements. prerequisite: CSCE 301 or permission of the CSCE program director

**CSCE 401 Economic and Community Development (3)** Using theory and practice, this course emphasizes the programs and policies that enhance the economic vitality of low- and moderate-income communities and organizations to provide an understanding of the basis for both economic and community development along with a basic set of practical tools to enable the student to work in the field of community development. This course features a service-learning component.

**CSCE 412 Community Leadership and Decision-Making (3)** Designed to provide students with the competencies necessary to be an effective community leader and decision-maker in the context of community planning, relationship building across networks and social organizing. Students are exposed to public decision-making from local to national government. Examines the primary skills needed for effective engagement in political and civic discussion, deliberation, advocacy and action.

**CSCE 481 Service Learning (3) and CSCE 482 Service-Learning Seminar (3)** Each student develops an original project as a capstone to the Community Studies and Civic Engagement program, which is tied to a 240-hour internship. Through this capstone endeavor, the student integrates theory and practice in a project that is designed in consultation with the CSCE program director. These two courses are co-requisites—that is, they must be taken together in the same semester. prerequisite: CSCE 301

**CSCE 492 Independent Study (3)** Provides students with the opportunity to pursue a research topic or community service project in depth over the course of a semester. An interested student submits a proposal to a faculty member who agrees to be the adviser for the study. The faculty member and the
student negotiate the terms of study and the requirements for the final product. prerequisite: permission of the program director

**CSCE 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

**CSCE 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

**CSCE 497 Special Topics in Community Studies and Civic Engagement (3)** An examination of a selected topic or issue related to the research interests of CSCE faculty or a collaboration with a local nonprofit in a one-time community project. Course may be repeated for credit when topic changes.

**COMPUTER SCIENCE/COMPUTER NETWORKING AND TECHNOLOGIES (COSC)**

Computer Science (COSC) courses are offered by the Division of Science, Information Arts and Technologies within the Yale Gordon College of Arts and Sciences. Related courses are listed under Mathematics (MATH).

**COSC 100 Introduction to Computer Technologies (3)** An introduction to computer hardware and software and their uses. Introduces students to how computers, networks and the Internet work, how they impact our lives and the ethical implications of information technologies. Hands-on experience with a variety of computer applications, including spreadsheet, presentation, database application and Internet tools. Laboratory fee required. [COSC]

**COSC 150 Introduction to Game Design (3)** Examines the use of computer technology to produce computer games and create interactive educational and training materials; covers beginning concepts in screen design, animation and scripting. Note: Additional lab time outside of class may be required to complete course projects. Laboratory fee required.

**COSC 155 Internet Technologies: Mastering the Basics (3)** Provides an introduction to the Internet, as well as technologies used to generate and maintain Web pages, such as FTP, HTML, CSS, JavaScript and XML. Note: Additional lab time outside of class may be required to complete course projects. Laboratory fee required.
COSC 160 Graphics for Game Design (3) Introduces 2-D computer graphics, including image generation, capture and processing. Particular emphasis on applications to interactive multimedia and computer game design. Provides basis for further study in 3-D graphics. Note: Additional lab time outside of class may be required to complete course projects. Laboratory fee required.

COSC 250 Game Scripting (3) Advances a student’s knowledge of game software design by examining advanced functions, variable types, software design tools and programming concepts. Expands upon materials covered in COSC 150: Introduction to Game Design while also introducing students to more complex types of data and programming structures. Introduces students to the software design process and focuses on developing good software design habits as well as advanced knowledge of programming techniques. By the end of the course, students are able to implement more fully their game design ideas in a software prototype. Lab fee required. prerequisite: COSC 150 or equivalent

COSC 260 Introduction to 3-D Graphics (3) Introduces students to modeling, texturing, lighting, rendering and simple animation using the industry-standard tool. Provides a foundation for further work with sophisticated 3-D imaging tools. Note: Additional lab time outside of class may be required to complete course projects. Laboratory fee required.

COSC 297 Topics in Computer Science (3) Explores issues, concepts and methods in computer science. Content varies depending upon the interests of faculty and students. Course may be repeated when topic changes. Lab fee required.

COSC 301 Microcomputer Maintenance and Troubleshooting (3) Introduces students to the architecture and hardware components of the microcomputer. Topics include installation, configuration and upgrading; diagnosing and troubleshooting; safety and preventive maintenance; system board, processors and memory; printers; portable systems; and basic networking. Laboratory fee required.

COSC 305 Networking: Theory and Application (3) An introduction to networks, including network operating system concepts. Topics include network components, the OSI and 802 models, protocols, network architecture, network administration and support, LANs, WANs and troubleshooting. This course requires each student to purchase an unassembled computer that he/she builds in class. These computers are then used to support networking exercises. Laboratory fee required.

COSC 309 Computer Programming I (3) A first programming course designed to teach problem-solving, algorithm development and principles of good programming. Topics include procedures, decisions, repetition, arrays, sequential and random-access files and the graphical display of data. Algorithms are implemented in a visual programming language. Laboratory fee required.

COSC 310 Computer Programming II (3) A sequel to Computer Programming I. While continuing to emphasize problem-solving and algorithm development, this course introduces object-oriented programming; programming that integrates other applications, especially those in the Microsoft Office suite; and Internet programming. Laboratory fee required. prerequisite: COSC 309 or equivalent
COSC 312 Administering and Supporting a Network Operating System (3) Prepares students to install, configure, administer and troubleshoot the current version of Microsoft Windows Server network operating system. Topics include setting up user and group accounts; securing network resources; auditing resources and events; monitoring network resources; backing up and restoring data; managing system policies, file systems and fault tolerance; inter-operating between network operating systems; implementing network clients and directory replication; managing/implementing disaster recovery; and troubleshooting. Lab fee required. Prerequisite: COSC 310.

COSC 315 Programming for Interactive Design (3) An introduction to object-oriented computer programming framed in the technical aspects of game programming. The course covers variables, control structures, functions, arrays, data types, classes, inheritance and polymorphisms. Students apply these concepts to build a series of small games. Laboratory fee required.

COSC 324 Designing for Humans (3) Introduces key concepts of human/computer interaction, including how humans interact with technology to find and process information. It also introduces the concepts of systematic software testing to students of applied information technology and students of interactive simulation and computer gaming. Students learn principles of interface and software construction and apply them to practical problems of software or game evaluation in the process of learning principles that underlie good interaction and play design. Readings cover theory of human/computer interaction, interaction design and usability testing. Laboratory fee required.

COSC 330 Games for Learning (3) Conveys the skills necessary for students to begin a career in instructional video game design. Expands on previous game design courses but focuses on the creation of serious games for adult and child learning. At the end of the course, students design, develop and test a working prototype of a video game for learning. Lab fee required. Prerequisite: COSC 320 or equivalent.

COSC 331 Introduction to Computer Organization (3) Basic logic design, coding, number representation and arithmetic, computer architecture, examples using simple minicomputer or microcomputer systems. Laboratory fee required. Prerequisite: COSC 310.

COSC 332 Fundamentals of Computer Security (3) Introduces students to core principles and practices in computer and network security. Covers the fundamentals of computer/network security including general security concepts; threats and vulnerabilities; application, data and host security; access control and identity management; basics of cryptography; and compliance and operational/organizational security. Current topics in computer security such as cloud computing security and application programming development security also are discussed. Course materials prepare students for the vendor-neutral CompTIA Security+ industry certification exam. Lab fee required.

COSC 351 Object-Oriented Programming (3) Introduces the syntax of an object-oriented language and teaches object-oriented programming concepts and design. To teach these concepts, the course presents an object-oriented programming language such as C++, C# or Java. Also studied are more
advanced programming topics not covered in COSC 151 and COSC 251 (e.g., recursion and data structures). Lab fee required. prerequisite: COSC 251 or equivalent

**COSC 356 Database Systems (3)** Introductory course to database design and implementation. Topics include modeling using Entity-Relationship (E-R) diagrams, query formulation with Structured Query Language (SQL), database planning and design, normalization, creating and maintaining a database and basic database administration. Basic concepts of the relational data model and SQL are discussed in detail. Students plan, design and test a relational database and associated application components. They also obtain hands-on experience using a current version of Microsoft SQL Server Database Management System or another system. Lab fee required. prerequisite: COSC 251

**COSC 370 Level Design (3)** Builds on an existing understanding of game design concepts, scripting and 3-D asset creation and provides students with the opportunity to apply this to advanced level design utilizing professional tool sets. Projects are team based and emulate industry best practices using a current 3-D game engine. Lab fee required. prerequisites: COSC 250, COSC 260 and COSC 320 or their equivalents

**COSC 390 Game Journalism (3)** Focuses on building the reporting and writing skills needed to write game reviews and other video game-related news articles. Students regularly practice writing game-related pieces and develop their critical analysis skills through peer review; they are expected to learn through practice, peer review and review of existing published works. Topics covered include: What is journalism and how does game journalism differ? How do the elements of video games translate to written works, and how does one translate game concepts to a general reading audience? Lab fee required, prerequisite: COSC 320 or equivalent

**COSC 401 The TCP/IP Protocol Suite (3)** Introduces students to the TCP/IP suite of communication protocols. Topics include fundamentals, basic and advanced IP addressing, TCP/IP routing, TCP/IP name resolution, TCP/IP tools, dynamic P/IP configuration tools, WINS, NetBIOS, Internet/intranet services, printing and RAS, network management, and monitoring and troubleshooting. Laboratory fee required. prerequisite: COSC 312

**COSC 402 Interactive Narrative (3)** Covers advanced principles of creating interactive narrative experiences, from creative writing to storyboarding and interaction design. Focuses on examples of successful and experimental interactive narrative from across media, including video games, electronic literature, interactive fiction and gamebooks. Lab fee required. prerequisite: COSC 320

**COSC 405 The Business of Game Development (3)** Examines the past, present and future of the video game industry, with an emphasis on business organizations and practices that have evolved along with the medium. Particular attention is given to opportunities and requirements for new ventures in games and other areas of interactive design. Laboratory fee required.
COSC 407 Social Media and Games (3) Examines games and simulations as systems designed for common use and collaboration and the ways non-game social media can promote markets for digital entertainment. Theoretical approaches are compared to current implementations and tested in one or more limited practical experiments. Laboratory fee required.

COSC 408 History of Video Games (3) Surveys the history of video games, from the first experiments in the decades following World War II to the current era of consoles and network games. Despite being a relatively recent medium, video games have already undergone significant evolution from their earliest roots. Examines these transformations in terms of art, narrative, graphics, audio and game mechanics. Throughout the course, students position these trends within the cultural roles games have played and speculate on the future of the form. Laboratory fee required.

COSC 410 3-D Modeling (3) Improves an existing understanding of 3-D modeling, texturing and animation for interactive simulation applications, including scenic and character design for computer games. Practical assignments allow students to advance skills in industry-standard programs (e.g., 3D Studio and Maya). Readings, critical examples and visits from industry experts provide broader contexts for skills. Laboratory fee required. prerequisite: COSC 260

COSC 412 Unix/Linux Administration (3) Students develop skills required to administer the Unix/Linux operating systems. Topics include installing and configuring a popular distribution, common tools and utilities, file system administration, user and group management, network/Internet service configuration, user and system security, shell scripting, kernel configurations, interoperability with Windows, back-up and storage, and troubleshooting. Lab fee required. prerequisites: COSC 212, COSC 251 and MATH 201

COSC 414 Audio Integration in Games and Simulations (3) Concentrates on the design of sound elements for use in computer games and other forms of interactive simulation. Practical design exercises based on standard production software and popular game engines are combined with theoretical readings, critical studies and visits from industry experts. Laboratory fee required.

COSC 415 Web Site Essentials (3) Introduces the fundamentals of creating and maintaining a website. Begins with a general treatment of Web servers, connecting to the Internet, Web security and Web administration. Topics include file servers, Web server computer hardware, communication media, TCP/IP, HTTP, domain name conventions, getting an IP address, backing up, fault tolerance, firewalls and proxy servers. The general treatment is followed with a study of Microsoft’s Internet Information Server (IIS). Topics include installing IIS, Microsoft’s Index Server and supporting Active Server. Students create an intranet using Microsoft’s Internet Information Server and Web pages using Microsoft’s FrontPage. Laboratory fee required. prerequisite or co-requisite: COSC 401

COSC 418 Design of Multiplayer Games (3) Examines the design principles and challenges underlying games and interactive simulations designed to be used collaboratively or in situations of simultaneous use, from multiplayer console games to massively multiplayer Internet games and their associated
virtual communities. Assignments include development of modules or levels for popular multiplayer games and systematic study of Internet game communities. Laboratory fee required.

**COSC 420 3-D Production (3)** Builds on 3-D design concepts learned in COSC 260: Introduction to 3-D Graphics and COSC 410: 3-D Modeling to explore cutting-edge, industry-standard techniques for the creation of 3-D game graphics and animation. Projects focus on emerging technologies and practices and on optimization of models for real-time simulations. Students are required to apply creatively an advanced understanding of 3-D modeling to portfolio-quality work. Additional lab time outside of class may be required to complete course projects. prerequisites: COSC 260 and COSC 410 or their equivalents.

**COSC 432 Information Assurance (3)** Provides an introduction to the various technical and administrative aspects of information security and assurance. Discusses the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system with appropriate intrusion detection and reporting features. Ethical, legal and professional issues in information security are also discussed. Students develop familiarity with research and information resources to forecast emerging problems and strategies in this area. Laboratory fee required. prerequisite: COSC 305.

**COSC 433 Network Security (3)** Deals with the conceptual and technological aspects of network security. The course begins with a review of various forms of network attacks, including scanning, exploits and denial-of-service attacks. It discusses the role of major networking devices, including routers, firewall technology and servers, in establishing a secure network. It provides a comprehensive overview of building and maintaining firewalls in a business environment. It discusses how to make an intelligent choice of firewall technology and firewall planning/design and presents basic firewall troubleshooting. It also covers security policy development, authentication, encryption, VPNs and IDSs. Laboratory fee required. prerequisite: COSC 312.

**COSC 434 Web and Database Security (3)** Introduces the security challenges and threats in database/Web-based systems. Students learn how to describe and apply security principles and technologies and how to implement them across various database/Web systems. In addition, advanced topics related to database/Web-based systems such as e-commerce security, security problems in data warehousing and data mining are introduced. Lab fee required. prerequisites: COSC 332, COSC 356 and MATH 201.

**COSC 440 Frontiers of Game Design (3)** Focuses on one or more emerging technologies or practices likely to shape the video game industry in the next three to five years. Students both investigate the history and rationale of the innovation and develop practical experiments or proofs of concept indicating possible applications. Laboratory fee required.
**COSC 450 SDE Internship (3)** Provides students with hands-on work experience in applied simulation and game development. Students may arrange placement with an external organization, subject to written approval by the instructor and an official of the organization. Alternatively, students may participate in an in-house project managed by the instructor. In the latter case, students attend regular class meetings as part of their project work. Laboratory fee required.

**COSC 452 Internship in Simulation and Digital Entertainment: Production and Design (3)** Internship course intended to give students professional experience in software reliability and play testing in computer games and other areas of applied interactive simulation. Students are assigned projects in area industries or in an on-campus development facility to be developed with local companies. Laboratory fee required.

**COSC 453 Advanced Web Development (3)** Presents a detailed study of the methods and technologies for building highly interactive websites and other Web-based applications. Principles for building websites that exhibit usability, security and maintainability are presented. Students learn scripting, coding and utilizing website development tools to enhance the performance and functionality of a website. Technologies such as HTML5, XML and Ajax are introduced. Requires students to build multiple Web pages and implement a major website/Web application in phases. Lab fee required. prerequisites: COSC 155 or its equivalent and COSC 351

**COSC 460 Games, Simulations and Society (3)** Examines the nature of games and how they are framed by and impact individuals and groups. Topics include scholarly work on online economies and community building, fan cultures and their creative reworking of game content, the role of play in human culture and the relationships between online and offline identity, as well as psychological facets of games. Laboratory fee required.

**COSC 469 Game Development Project I (3)** Constitutes the first part of the capstone experience in the Simulation and Digital Entertainment major. Students work through design assignments to practice project management and team coordination. They also research and propose individual project concepts, some of which are selected for group development as the final course project and for further work in Game Development Project II. Laboratory fee required. prerequisites: Simulation and Digital Entertainment major with senior status

**COSC 470 Game Development Project II (3)** Provides the capstone experience for students in the Simulation and Digital Entertainment major. Working with faculty and visiting industry experts, students propose a concept for a computer game or applied interactive simulation, developing that concept over the course of the semester through several stages of specification and prototyping. Theoretical readings and critical studies of existing games provide insight and context. Final prototypes are entered in a competition at the end of the course whose jury includes representatives from game and simulation development companies. Laboratory fee required. prerequisite: COSC 469 and Simulation and Digital Entertainment major with senior status
COSC 477 Community-Focused Game Design (3) Students collaborate with the community to build a game focused on solving a problem or addressing a community need. Possible projects can incorporate a range of digital and communication skill sets and might include physical games (card, board), alternate or augmented reality, browser-based games, simulations or other forms as appropriate to the project. Lab fee required. prerequisite: COSC 320

COSC 490 Practicum in Information Technology (3) Provides students with hands-on work experience in applied information technology. Students may arrange placement with an external organization, subject to written approval by the instructor and an official of the organization. Alternatively, students may participate in an in-house project managed by the instructor. In the latter case, students attend regular class meetings as part of their project work. Laboratory fee required. prerequisites: COSC 430 and COSC 453

COSC 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. Laboratory fee may be required. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

COSC 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. Laboratory fee may be required. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

COSC 497 Topics in Computer Science (3) Intensive exploration of topics in computer science of mutual interest to faculty and students. Content varies according to the current interests of faculty and students. The topic for study appears under that name in the class schedule. Course may be repeated for credit when topic changes. Laboratory fee required.

COSC 499 Independent Study (1-3) The pursuit of independent study under the supervision of a full-time faculty member. The number of credits to be earned is determined by the supervising faculty member before the study begins. Students may earn up to 3 credits for this independent study. Laboratory fee required. prerequisite: varies; see class schedule or instructor
CRIMINAL JUSTICE (CRJU)

Criminal Justice (CRJU) courses are offered by the School of Criminal Justice within the College of Public Affairs.

CRJU 200 Criminal Justice (3) Examines the fundamental concepts of the criminal justice field; the history, philosophy, social development and operations of police, courts and corrections in a democratic society; and criminal justice careers. [SOSC/QQT]

CRJU 220 Police and Society (3) An overview designed to examine law enforcement service delivery at the local, state and federal levels of government. Special emphasis is placed on the historical development of the law enforcement role in contemporary society and how it shapes the type of law enforcement service that can be expected in the future.

CRJU 301 The Contemporary Criminal Justice System (3) A critical analysis of the contemporary criminal justice system. Political, economic and societal contexts provide the framework for an examination of issues, current problems and challenges facing the criminal justice system. prerequisite: CRJU 200 or equivalent

CRJU 302 Criminal Justice Research Methods (3) A survey of the research methods and techniques utilized within the field of criminal justice and criminology. Topics discussed include research designs, sampling, data collection, quantitative versus qualitative methods and applications to criminal justice planning and administration. prerequisite: CRJU 200 or equivalent

CRJU 304 Criminal Justice Professional Studies (3) Assists students with criminal justice database technologies and with writing and research skills specific to the field of criminal justice. The course contains units on conducting secondary research, learning to write for the academic setting (e.g., literature reviews, empirical studies) versus the applied setting (e.g., case summaries, incident reports) and preparing for a career in criminal justice. prerequisite: passing of Upper Division Writing Placement Test prior to enrolling in CRJU 304

CRJU 306 Criminological Perspectives (3) The major paradigms, models and theories that form the foundation of criminal justice and criminology are examined. Using current texts, journals and reports, the course examines the range of explanations of criminal behavior, focusing on attempts to integrate perspectives and theories. prerequisite: CRJU 200 or equivalent

CRJU 320 Police Administration (3) Study of line and staff functions in police organizations. Examination of organization principles, management functions and organizational behavior as they relate to police agencies. Emphasis on the behavioral science approach to supervising and managing police personnel. prerequisite: CRJU 200 or equivalent

CRJU 330 Criminal Law (3) An examination of the general and specific parts of the substantive criminal law in the United States, its development within historical and societal contexts, and its representation
in statutory and case law. Consideration is given to problems of application and interpretation of the written law. prerequisite: CRJU 200 or equivalent

**CRJU 332 Civil Rights and Civil Liberties in Criminal Justice (3)** The nature of civil liberties and civil/political rights in the United States. Emphasis on judicial exposition and its relationship to the field of criminal justice. prerequisite: CRJU 200 or equivalent

**CRJU 334 Criminal Procedure (3)** Presents the principles and applications of procedural criminal law in the United States. Such procedural laws are supplemented by rules of evidence and decisions of the U.S. Supreme Court on key constitutional questions. prerequisite: CRJU 200 or equivalent

**CRJU 341 Correctional Perspectives (3)** Introduces students to the history, role, functions, problems and contemporary practices of correctional facilities, including prisons, jails and community corrections (e.g., probation and parole) and the role and difficulties of inmates and correctional officers. prerequisite: CRJU 200 or equivalent

**CRJU 380 Forensics in Criminal Justice I (3)** An examination of the history and development of the legal issues concerning the admissibility of scientific evidence in court proceedings. Demonstrations of the techniques used by various experts in forensics are presented, concentrating on psychiatry, firearms, micrography, forensic pathology, chemistry and fingerprint identification. prerequisite: CRJU 200 or equivalent

**CRJU 381 Forensics in Criminal Justice II (3)** An examination of the history and development of the legal issues concerning the admissibility of scientific evidence in court proceedings. Demonstrations of the techniques used by various experts in forensics are presented, concentrating on neutron activation analysis, questioned documents, visual and verbal identification, polygraph, photography, hypnosis and narcoanalysis. prerequisite: CRJU 380

**CRJU 390 Victimology (3)** An introduction to the study of crime victims. Examines the victim’s role in crime, the criminal justice system’s handling of victims and victim services. prerequisite: CRJU 200 or equivalent

**CRJU 404 Comparative Criminal Justice (3)** Examines comparative criminal justice: how different societies around the world practice criminal justice relative to practices in the United States. Multidisciplinary approach considers the economic, governmental, geographic and social situations in the selected countries. prerequisite: CRJU 301

**CRJU 406 Political Terrorism (3)** An overview of the definitional and conceptual issues, types, history, causes and effects of oppositional political terrorism. The events of Sept. 11, including its major actors such as Osama bin Laden, al-Qaeda and the Taliban, are explored, including the reaction to this event by the United States and its allies over the past decade and the changes that have occurred since the terrorist attacks. prerequisite: CJRU 301
CRJU 408 Crime and Delinquency Prevention (3) A review of major crime and delinquency prevention strategies, including punitive, mechanical and corrective prevention policies and programs. Selected prevention programs and policies are highlighted for in-depth evaluation. prerequisite: CRJU 301

CRJU 420 Special Problems in Policing (3) Issues and problems in policing a free society. The role and function of the police, the effects of contemporary police practices and the exercise and control of police power. Examination of current problems and proposals for reform. prerequisite: CRJU 301

CRJU 430 Juvenile Justice (3) An examination of youthful law violation and the juvenile justice system. The history, law, operations and agencies of juvenile justice are analyzed, as are alternative approaches to defining, preventing and responding to youthful law violation. prerequisite: CRJU 301

CRJU 432 Criminal Courts (3) An exploration of the multidisciplinary literature on the criminal courts in the United States, focusing on the social, political and organizational contexts of the court, the court’s case flow and the various actors in the court’s process. Contemporary issues are highlighted. prerequisite: CRJU 301

CRJU 434 Survey of Law (3) A consideration of selected areas of law that have direct bearing on criminal justice procedures, including family law, administrative law, personal property, torts, evidence and constitutional law. prerequisite: CRJU 301

CRJU 441 Special Problems in Corrections (3) In-depth analysis of the issues, problems and suggested reforms facing the contemporary role and practices of correctional facilities, including prisons, jails and community corrections (e.g., probation and parole), and the role, functions and difficulties of inmates and correctional officers. prerequisite: CRJU 301 or CRJU 341

CRJU 442 Community Corrections (3) An examination of practices and problems of community corrections, including but not limited to probation, parole, halfway houses and fines. prerequisite: CRJU 301 or CRJU 341

CRJU 451 Minorities, Crime and Justice (3) An analysis of race, ethnicity and gender issues and how they impact the criminal justice system. An examination of how race, ethnicity and gender issues revolve around questions associated with evidence of disparity, disproportionality and discrimination within the criminal justice system. prerequisite: CRJU 301

CRJU 454 Criminal Behavior (3) An examination of selected types of crime or criminal behavior patterns, such as white-collar crime, violent crime, organized crime, drugs and crime, or age and crime. The topic studied appears in the class schedule. Course may be repeated for credit when the topic changes. prerequisite: CRJU 301

CRJU 456 Drugs and Crime (3) An examination of various topics and issues relating to drugs and crime in the United States. Explores social, legal, medical and political factors, as well as changes in attitudes that
contribute to drug use and policy. Prominent drug-crime issues and projections for the future are included. prerequisite: CRJU 301

CRJU 464 Criminal Justice Issues (3) An examination of a selected topic or issue, such as women and criminal justice, private security, criminal justice legislation or ethical issues. The topic studied appears in the schedule of classes. Course may be repeated for credit when the topic changes. prerequisite: CRJU 301

CRJU 470 Biosocial Perspectives in Criminology (3) A multidisciplinary approach to the study of human behavior generally and criminal behavior specifically. Provides a survey of the developmental, psychological and biological aspects of antisocial behaviors and forensic disorders. The latest scientific discoveries with respect to causes of behavior and the relevant controversial issues are presented. Diagnostic, preventive and treatment techniques new to the field are covered. prerequisite: CRJU 301

CRJU 485 Advanced Criminal Justice Studies (3) The senior-level capstone experience. The focus is multidisciplinary, and the emphasis is on the integration and application of theory, research methods and statistics. The problems of data gathering and reporting and relationships of theory, research and practice in the field are addressed. prerequisites: CRJU 301, CRJU 302, CRJU 304, CRJU 306 and MATH 115

CRJU 490 Criminal Justice Internship (3) A practicum designed to broaden the educational experience of students through appropriate observational and work assignments with criminal justice agencies. Correlation of theoretical knowledge with practice is emphasized. Course is eligible for a continuing studies grade. prerequisites: CRJU 301, senior status and consent of the instructor

CRJU 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

CRJU 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

CRJU 498 Directed Independent Study (1-3) Designed to provide credit for a student who wants to pursue independent work under the supervision of a faculty member. prerequisite: consent of the instructor
DEVELOPMENTAL COURSES (DVMA, DVRW)
Developmental courses are offered in conjunction with the Yale Gordon College of Arts and Sciences. Related courses are listed under Writing (WRIT) and Mathematics (MATH).

Note: Institutional credits contribute to a student’s course load for financial aid and determination of full- or part-time status but do not count toward the degree.

DVMA 93 Introductory Algebra (3 institutional credits) Develops skills that are essential background for an intermediate algebra course. Topics include a brief review of fundamentals of arithmetic and pre-algebra. As much as possible, the course is applications oriented. Elementary algebra topics include real number operations, variable expression, polynomial operations, factoring of polynomials, operations with rational expressions, linear equations in one or two variables, systems of linear equations, linear inequalities, solving quadratic equations by factoring, properties of radical expressions and solutions of applications problems.

DVMA 95 Intermediate Algebra (3 institutional credits) Develops midlevel algebra skills that are essential background for a college-level mathematics course. Topics include a brief review of basic algebra, linear equations and inequalities (including graphs), factoring quadratic expressions, quadratic equations (including graphs), fractional algebraic expressions, exponents and radicals. prerequisite: adequate score on placement test or successful completion of DVMA 93

DVRW 90 College Reading and Writing I (3 institutional credits) Helps students develop college-level reading skills, including using new and specialized vocabulary appropriately in writing and speaking; identifying, understanding and analyzing key parts of a text; and applying systematic reading methods to increasingly complex reading assignments in textbooks, academic articles and other required reading materials. Students also improve their college-level writing skills as they learn to adopt and adapt recursive writing processes, develop the parts of an academic essay and write coherent short expository essays for a variety of purposes and audiences using a variety of patterns of organization.

DVRW 95 College Reading and Writing II (2 institutional credits) Develops students’ confidence in their ability to plan, organize, develop and edit their writing in response to college-level writing tasks through a focus on development of clear, coherent paragraphs and longer essays with emphasis on basic grammar and sentence-combining skills, formulation of thesis statements, development of ideas and increased competence in writing about reading.

ECONOMICS (ECON)
Economics (ECON) courses are offered by the Merrick School of Business.

ECON 100 Economics of Contemporary Issues (3) Provides a survey of societal issues examined through the lens of economic analysis. A scientific approach is adopted in which the basic tools of economics are applied to social issues such as pollution, crime and prevention, poverty and discrimination, professional
sports and economic growth. Students gain an appreciation of how society addresses the conflict between unlimited wants and scarce resources. [SOSC/Q&Q]

**ECON 200 The Economic Way of Thinking (3)** An economist sees the world in a unique way and is able to provide a different perspective on many issues. This course presents the “economic way of thinking” with an emphasis on being able to make effective decisions in a wide variety of economic and business situations. In addition, the “economic way of thinking” is used to understand the impact of business and government policies and actions on our daily lives. [SOSC/Q&Q]

**ECON 305 Managerial Economics (3)** Managers and business professionals need the wide variety of tools provided by economic theory to deal with the many complex issues facing organizations in today’s competitive global markets. This course focuses on the economic forces affecting the process of organizing economic activity. The primary tools of analysis are imperfect information, transaction costs and the voluntary pursuit of efficiency. prerequisites: ACCT 202, ECON 200 or 3 hours of micro- or macroeconomics, and OPRE 202

**ECON 312 Public Economics and Land Use Policy (3)** Analyzes the nature and structure of urban economies; the location of economic activity; the economics of an urban framework; and the principles of urban economic development, housing, transportation, poverty, and unemployment and municipal finance.

**ECON 409 International Economics (3)** A broad coverage of international issues, providing a starting point for the analysis and insights available from other business disciplines. Topics include the underlying rationale for trade, market mechanisms, efficiency, exchange rates, balance of payments and some aspects of international economic development. prerequisite: ECON 200 or 3 hours of micro- or macroeconomics

**ECON 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

**ECON 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director
ECON 497 Special Topics in Economics (3) The economics and finance faculty, from time to time, offer an opportunity to integrate new material into the undergraduate program reflecting changes in the field and in the educational needs of students. Prerequisites: ECON 305 and 6 additional hours of economics.

ECON 499 Independent Study: Economics (1-3) An independent study completed under the direction of a faculty member. For eligibility and procedures, see the Merrick School of Business Independent Study Policy.

ENGLISH (ENGL)

English (ENGL) courses are offered by the Klein Family School of Communications Design in the Yale Gordon College of Arts and Sciences. Related courses are listed under Communication (CMAT), Writing (WRIT) and graduate Publications Design (PBDS).

ENGL 200 The Experience of Literature (3) Teaches students how to read, understand and appreciate fiction, drama and poetry. Exploration of three major literary genres through close reading of selected works, with attention to the contexts that have shaped them. Understanding and applying literary terms and concepts to written analysis of literary works. [ENGL/HAT]

ENGL 250 Origins: In Search of Self (3) Readings in the literature of self-discovery, initiation and the quest for identity. Contemporary racial, religious, sexual, sociocultural and class experiences are examined with a look back to their roots in tradition. [ENGL/HAT]

ENGL 297 Topics in English (3) Intensive exploration of topics in literature or language. The topic for study appears in the class schedule. Course may be repeated for credit when topic changes. [ENGL/HAT/GIK]

ENGL 311 Wells of the Past: Classical Foundations (3) An intensive study of varieties of great literature organized thematically and in terms of ideas connected with periods of important historical or philosophical change. Stressed at present is the age of classical antiquity. Recommended for all students interested in a humanistic and cultural approach to literature and ideas.

ENGL 313 Worlds Beyond the West (3) An intensive study of some of the great writing from non-Western literatures. This study may range from the Middle to Far East, from the Orient to Africa. May be repeated for credit when the topic changes.

ENGL 315 The Short Story (3) An investigation of the various forms a short story may take and the kinds of effects writers have tried to produce. Particular attention is given to authors of the 20th century.

ENGL 316 Modern Poetry (3) A reading and discussion of 20th-century poetry. Emphasis is given to major works of those poets thought best to define the modern and its diversity of poetic response.
ENGL 317 English Fiction: Journey in Experience (3) A study of the development of English fiction. The course moves from the 18th century to the early 20th century with analogues from present and past.

ENGL 318 Modern English Fiction: Journey Into the Mind (3) An examination of the break with the past in 20th-century English fiction. Studies in new developments and techniques in thought, structure and style.

ENGL 319 European Fiction (3) Readings in major European fiction focusing on the nature of realism and subjectivity in writers from the beginnings to the 20th century.

ENGL 320 Contemporary Literature (3) An investigation of trends and individual writers of today with respect to their immediacy and possible universality. Varied emphasis on the many different forms of current poetry, drama and prose.

ENGL 327 Children’s Literature (3) Explorations of classic and contemporary literature for children from an international and multicultural perspective. Emphasis on the art of storytelling through words and images, criteria for evaluating children’s literature and techniques for classroom presentation. Attention to children’s literature as an expression of its time.

ENGL 328 Young Adult Literature and Culture (3) A study of literature written for adolescents or young adults. Examines differences between adolescent and adult literature, criteria for evaluating it, guidelines used by writers and ways in which teachers incorporate it into the curriculum.

ENGL 332 Literature & Film (3) A study of famous and infamous adaptations of literary classics, ancient and modern. The problems involved in adapting one medium of communication to another. Laboratory fee required.

ENGL 333/CMAT 333 Media Genres (3) Analysis of the patterns and conventions of a specific type of media program (e.g., Western, science fiction, situation comedy), media artist (e.g., Hitchcock, Allen, Capra) or style (e.g., film noir). May be repeated for credit when the topic changes. Laboratory fee required.

ENGL 334/CMAT 334 Oral Interpretation of Literature (3) Creative reading: the transformation of the writer’s word through the reader’s voice in expository, poetic, narrative and dramatic forms. A progression from reading to analysis to interpretation to presentation. Laboratory fee required.

ENGL 337 Great Plays: From the West & East (3) A study of plays from major periods of world drama, with a view to showing the shaping of the literary movements, forms and techniques of the modern theater.

ENGL 338 Modern Drama (3) The drama of the 20th century, with emphasis on contemporary movements and innovations.
ENGL 341 American Literature: The Central Years (3) A critical and historical study of representative American authors and movements—Romanticism, Realism, Naturalism—with emphasis on the literary renaissance of the 19th century.

ENGL 342 Melville, Poe & Whitman: American Voyagers (3) A study of three major American authors whose work explores the romantic figure of the voyager and of the voyage itself, both physical and metaphysical. Emphasis is placed on these authors’ use of allegory and symbolism and their affirmation and criticism of certain American ideals and dreams.

ENGL 344 American Fiction (3) A critical and historical study of the ideas, structure and themes of major American novels and short stories, with emphasis on works of the first half of the 20th century.

ENGL 346 The American Dream (3) The continuing cycle of faith and doubt in the brave new world of America, with particular attention to the writers of America’s maturity.

ENGL 348 The Multicultural Americas (3) A study of postcolonial literature in the Americas, other than the United States, with an emphasis on tensions between the European cultural tradition and that of the indigenous or nonwhite populations of the Americas. May be repeated for credit when the topic changes.

ENGL 349 Identities: Explorations in the American Past & Present (3) A study of problems of individual identity and social roles: racial, ethnic and sexual. The voices of writers and poets that reflect two worlds, yet are urgently their own.

ENGL 351 Ancient Myth: Paradigms & Transformations (3) An introduction to classical mythology as well as other ancient literatures and mythographies along with their later adapters and interpreters. [ENGL/CTE]

ENGL 354 Images of Love (3) A varying look at the faces and reflections of love in literature, art and myth. Readings in selected classical and modern works invite students to compare and contrast modern and traditional ideas about love.

ENGL 356 Literature & Law (3) Examines the relationship between law and literature through close readings of literature dealing with the law, along with close readings of legal texts from a literary perspective. Students read primary course materials with special attention to historical, social and cultural contexts that have shaped them. Along the way, students look at ways that writers employ various techniques and devices to evoke both clarity and ambiguity for different audiences and different purposes.

ENGL 357 Other Worlds: Fantasy, Science Fiction & Mystery (3) Explorations and discoveries of distinctive literary worlds from Scotland Yard to outer space. Specific emphasis may vary. May be repeated for credit when the topic changes.
ENGL 358 Tolkien: Master of Fantasy (3) A close examination of the work of J.R.R. Tolkien in fiction and criticism, with emphasis on *The Lord of the Rings*. Also considers some of Tolkien’s sources and inspiration from fairy tale, legend and myth.

ENGL 361 The Hero & the Quest (3) The hero and the quest as archetypes, and an introduction to the mythic quest in early English literature from Beowulf to the Arthurian romance. Modern works are read against the background of the heroic tradition.

ENGL 362 Dante, Chaucer & Cervantes: Three Versions of Pilgrimage (3) An examination of Medieval and Renaissance concepts of love and the journey as they are reflected in the major works of these three writers.

ENGL 364 Shakespeare: Kings, Knaves & Fools (3) A thematic approach to Shakespeare’s development and variety, revolving around one work such as *Hamlet*, and dealing with Renaissance attitudes toward power, freedom and the individual. Shakespeare’s plays are viewed against the background of the Elizabethan period.

ENGL 365 Shakespeare: Love, Myth & Metamorphosis (3) A thematic approach to Shakespeare’s development and variety, centering on one play such as *Othello*, and dealing with Renaissance attitudes toward love and myth. Shakespeare’s plays are viewed against the background of his age.

ENGL 366 Milton, Blake & Yeats: Poet as Prophet (3) A study in development and contrast: concepts of order and revolt, of vision and revision, in the major works of the three poets. Emphasis among the three may vary from year to year.

ENGL 371 Changing Woman (3) An examination of sexual roles and politics in literature from the Victorian age to the present. Consideration is given to the relationship between gender and genre.

ENGL 372 Feminine Realities: In the Context of Their Times (3) Women’s writing and writing about women in the context of specific times and/or places. Emphasis on the literature, legends and other means (e.g., letters, journals, biographies) by which women’s voices can be heard. May be repeated for credit when the topic changes.

ENGL 374 Austen, the Brontes & Woolf: Rooms of Their Own (3) Classic, Romantic, Modern—these women brought their unique visions to life within the context of larger literary movements but created rooms of their own within which to write and live.

ENGL 391 Language as Technology (3) A consideration of narratives in the information age, historical developments through which changes in linguistic practice manifest themselves, and information theory. The role of languages in the social construction of reality as well as in the narrower sense of specific agents of change.
ENGL 392 The Archaeology of Language (3) A study of the beginnings, principles and designs of language. Competing paradigms of what language is and how it does what it does; how it communicates and conceals meaning; and how it expresses what we feel, think, represent and construe.

ENGL 395 Narrative Discourse: Cross-Media Comparisons (3) A study of narrative, both verbal and visual, as a form of discourse. The course focuses on the nature of narrative, types of narrative and the role of the reader/viewer in the narrative process. In addition to reading and viewing a wide range of narrative texts, from fairy tales to modern fiction, classical myths to television commercials and popular films, students compose their own narratives to gain a deeper understanding of what stories are and why they matter to us.

ENGL 397 Reading Strategies (3) An exploration of ways in which we make sense of literary works, both for ourselves and for others. Emphasis is placed on the relationships between literary texts and contexts (e.g., formal, inter-textual, historical, cultural), which make reading, as an interpretive act, a vital, rich and complex experience. prerequisite or co-requisite: 3 credits of literature coursework

ENGL 400 Literature in Society (3) An investigation of how literature emerges from and is shaped by the cultural and historical circumstances of specific times and places. May be repeated for credit when the topic changes.

ENGL 421 The Elizabethan Renaissance: In the Green World (3) A study, through poetry and drama, of the 16th-century English Renaissance. The world that molded Shakespeare and about which Shakespeare wrote.

ENGL 431 The Metaphysical Moment: From T.S. Eliot to John Donne (3) The 20th-century response to 17th-century literature and a study of the metaphysical idea and poetry that sparked that response.

ENGL 432 The Age of Reason (3) A study of major 18th-century writers; readings in poetry, prose and drama. The social, cultural and intellectual fabric of the age.

ENGL 441 The Romantic Imagination (3) A critical analysis of Romanticism and its meaning. The poetry, and some prose, is set against the background of the neoclassical and is viewed as a continuing literary force and ideal.

ENGL 442 The Victorian Paradox (3) Synthesis versus alienation. The Victorian consciousness torn by the emerging turmoil of modern society. Literature as the reflection of an age in transition.

ENGL 450 The Great Moderns (3) A seminar concentrating on three to five major writers of the early 20th century considered against the critical background of Modernism. May be repeated for credit when the topic changes.
ENGL 489 Directed Independent Study (3) Consideration and completion of a special topic or project in the study of literature or language. Each student works closely with a faculty member who helps to set goals, develop a course plan and guide progress. The project must be carefully planned and have the approval of both the instructor involved and the literature program director.

ENGL 490 Thesis in Literature (3) Directed individual instruction in the writing of a scholarly, critical or research paper. Each student works closely with a faculty director who guides his/her progress. The thesis must be of honors quality and must be finally approved by both the director and a second reader, one of whom is usually the division chair. Course is eligible for a continuing studies grade. Prerequisites: 3.5 GPA and/or permission of both the program director and the division chair.

ENGL 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. Prerequisites: 3.3 GPA and permission of the Denit Honors Program director.

ENGL 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. Prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director.

ENGL 497 Topics in Literature (3) Intensive exploration of topics in literature of mutual interest to students and faculty. Content varies according to the concurrent interests of faculty and students. The topic studied appears under that name in the class schedule. Course may be repeated for credit when topic changes. Prerequisite: none unless listed in the class schedule.

ENGL 498 Seminar in English: The Modern Tradition (3) A culminating close examination of a major 20th-century work in the light of modern literary traditions. Students relate the work, as a touchstone, to other writings of the past and present. Emphasis on independent thought culminating in a written project, presented before the class. Subject may change from year to year. Course may be repeated for credit when topic changes. Prerequisite: senior major status or permission of the program director.

ENTREPRENEURSHIP (ENTR) Entrepreneurship courses (ENTR) are offered by the Merrick School of Business.

ENTR 101 Imagination, Creativity and Entrepreneurship (3) Students experience what it means to discover the patterns that produce breakthrough ideas when attempting to solve business problems. Participants in this class are exposed to a systematic approach to changing the way they create, identify
and sell these ideas. They are also introduced to a number of techniques, concepts and methods that can be added to their creative skills toolkit. The course is designed around real methods that have been proven to work in some of the leading corporations in the world. These methods are conveyed through both interactive and experiential learning approaches. Students form teams for the purposes of developing creative solutions to problems and coming up with a concept around which a venture can be based. [SOSC/CTEK]

**ENTR 300 The Entrepreneurial Experience (3)** The entrepreneurial process considered as a paradigm, tracing the process and highlighting its practical applications. Special emphasis on the creation and initial growth phases of new ventures, with discussion of related ethical, international and legal issues. Local entrepreneurs serve as guest speakers. Open to all students, this course functions as a survey course as well as the first in the specialization in entrepreneurship sequence. There is a lab fee associated with this course.

**ENTR 320 Opportunity Assessment and Development (3)** Developing the analytical and conceptual skills required to test the feasibility of a concept for a new venture. A venture feasibility study involves undertaking activities that may help determine whether one should go forward with an opportunity. The process of feasibility analysis involves identifying, evaluating and determining whether to exploit an opportunity. Students will learn a number of practical skills and techniques that are applied to opportunities that students will explore. The creation of a feasibility study is the primary activity of the class. The course involves a significant amount of outside work that is time consuming, ambiguous, complex and multi-functional in nature. Feasibility analysis forces students to: undertake a significant amount of field research; develop and think critically about business concepts; answer fundamental questions about strategic, marketing, financial, operational and human resource issues about business concepts; and then research a decision about going forward to start the venture that is proposed. prerequisite: ENTR 300

**ENTR 330 Internal Control and Growth for Entrepreneurial Ventures (3)** Primary focus on managerial accounting practices, diagnostic analysis of financial statements and implementation of financial and accounting management systems designed to enhance the internal business control mechanism for an entrepreneurial venture. Topics are covered in the context of strategic and tactical decisions regarding entry into and exit from different product and service markets. prerequisites: ENTR 300, FIN 331 and ACCT 201

**ENTR 390 Entrepreneurship Mentorship (1)** Linked to the first three practica in the Entrepreneurship Fellows program. Consists of approximately four hours per week of mentorship with a local expert entrepreneur. prerequisite: status as an Entrepreneurship Fellow

**ENTR 430 Capital Acquisition and Strategic Financial Management for Entrepreneurial Ventures (3)** Provides knowledge and training in the area of capital acquisition strategies and tactics through the life cycle of an entrepreneurial venture and coverage of valuation techniques as applied to the allocation of business assets. Topics include start-up and mezzanine financing and their bridging to initial public offers
on the capital acquisition side, as well as capital budgeting and internal control techniques applied in the strategic context developed in earlier courses. prerequisite: ENTR 330

**ENTR 450 Entrepreneurial Organization, Planning and Implementation (3)** The capstone course of the specialization in entrepreneurship. Students apply knowledge and experience gained in prior courses to develop and implement a new venture. Outside entrepreneurs bring real-world problems to class and students participate in field experiences. Emphasis is placed on creating and continuously enhancing an overall management system to guide the entrepreneurial venture as it grows. prerequisites: ENTR 300 and ENTR 320.

**ENTR 460 Social Enterprise (3)** Successful nonprofit organizations are consistently challenged to expand their impact, be socially responsible and fiscally accountable, and find new sources of revenue. In response, more and more organizations are discovering innovative ways to generate both financial and social returns on their investments. Students and selected nonprofits learn about successful ventures and engage in lectures and hands-on work to determine the feasibility of entrepreneurial ideas, recognize and overcome financial obstacles, and convert social venture ideas into reality. prerequisites: ENTR 320 and ENTR 430 or FIN 430, or permission of instructor

**ENTR 490 Entrepreneurial Strategy (9)** One of the courses that comprise the final practicum in the Entrepreneurship Fellows program. Using entrepreneurial strategy as the integrating framework, students reflect on what they have learned in the program, integrate that learning with their new venture concept and prepare to launch their new venture upon or before graduation. prerequisites: status as an Entrepreneurship Fellow and completion of the Entrepreneurial Opportunities and Markets, Human Capital in a New Venture and Economics of New Venture Financing practica

**ENTR 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

**ENTR 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

**ENTR 497 Special Topics in Entrepreneurship (3)** The entrepreneurship faculty, from time to time, offer an opportunity to integrate new material into the undergraduate program reflecting changes in the field and in the educational needs of students. prerequisite: ENTR 300
ENTR 499 Independent Study: Entrepreneurship (1-3) An independent study completed under the direction of a faculty member. For eligibility and procedures, refer to the Merrick School of Business Independent Study Policy.

ENVIRONMENTAL SCIENCE (ENVS)
Environmental Science courses (ENVS) are offered by the Division of Science, Information Arts and Technologies in the Yale Gordon College of Arts and Sciences. Related courses are listed under Biology (BIOL), Chemistry (CHEM) and Physical Science (PHSC).

ENVS 201 Human Ecology (3) Introduces the student to aspects and dimensions of the impact of burgeoning human populations on human societies and life on Earth in general. Specific applied topics in environmental science, ecology and sustainability are covered, with a focus on urban ecosystem issues. An emphasis is placed on current and newsworthy topics at scales ranging from local to global. Understanding the place of humans in the biosphere and how to ensure a habitable planet for future generations and for other organisms is a primary goal of the course. [GSCI/QQT]

ENVS 221 Science of the Environment (4) A survey of a number of scientific disciplines related to the earth’s changing environment, including geology, ecology, zoology, hydrology, climatology and chemistry. These disciplines are integrated to provide a clearer understanding of complex environmental issues, using both local and global case studies. The laboratory portion of the course investigates environmental hypotheses and theories and introduces students to the techniques of environmental data collection and analysis. Lab fee required. [GSCI/QQT]

ENVS 285 Environmental Chemistry (4) Exploration of the fundamental principles of chemistry as they apply to the natural cycles of compounds in the environment, focusing on the source, fate and reactivity of compounds in natural and polluted environments. Emphasis is placed on environmental changes due to human activity, especially those related to land use and the exploitation of aquatic resources. Issues discussed include climate change, air pollution, industrial and municipal waste in waterways, and chemical cycling in urban areas. Lab fee required. prerequisite: ENVS 221

ENVS 289 Independent Study: Introduction to Field/Lab Research (3) Provides students with the opportunity to pursue a research topic or special project in the natural and environmental sciences. Students work closely with a faculty member who helps set goals, develop a course plan and guide progress. Projects vary with individual student interests. Lab fee may be required. prerequisite: permission of the division chair

ENVS 300 Greater Baltimore Urban Ecosystems: Field Investigations (4) An introduction to local ecosystems; their determining natural forces and human-caused challenges; and strategies, methods and techniques used to assess ecosystem condition. Students develop skills to evaluate ecological assessment reports, guidance documents and sampling techniques produced and used by environmental agencies and other interested parties. The course includes both classroom and field
components, with frequent class trips to local ecosystems to assess and compare their characteristics. prerequisite: ENVS 221

**ENVS 375 Molecular Genetics and Biotechnology in Society (4)** The science behind practices such as cloning and genetic engineering and advances in biotechnology in human health, agriculture, aquaculture and environmental sciences are discussed. This course raises awareness of the impact of biotechnology on human society and discusses related ethical issues, and it provides students with the knowledge to evaluate the risks and impacts of advances in biotechnology. The laboratory portion of the course introduces students to the techniques used in molecular genetics, molecular biology and biotechnology. prerequisite: CHEM 101

**ENVS 490 Special Projects in Environmental Sciences (3)** Provides students with the opportunity to pursue a research topic or special project in environmental science. Students work closely with a faculty member who helps set goals and develop a course plan and guides progress. The project must be carefully planned and have approval of the course instructor. prerequisites: ENVS 221 and ENVS 300

**ENVS 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

**ENVS 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

**FINANCE (FIN)**
Finance courses (FIN) are offered by the Merrick School of Business.

**FIN 300 Personal Finance (3)** A practical introduction to financial concepts and tools, which students learn to apply to personal financial decisions such as housing, personal and small-business borrowing, insurance, income taxes, retirement planning and investments in common stocks, bonds and mutual funds. FIN 300 may not be used as a specialization course by finance majors.

**FIN 330 Excel for Financial Analysis (3)** Provides students with skills in the use of Excel spreadsheets to prepare and present analyses for personal, corporate, real estate and investment finance. This course covers presentation and computation, and emphasis is placed on using spreadsheets to perform financial analyses. prerequisite: FIN 331 (may be taken concurrently)
FIN 331 Financial Management (3) An overview and understanding of fundamental principles of financial decision-making and their application to internal and external problem-solving by the business enterprise. Topics include financial statement analysis and forecasting, time value of money and security valuation, corporate capital budgeting, cost of capital and capital structure. Thematic coverage encompasses the traditional, international and ethical dimensions of financial decision-making. prerequisites: ACCT 201, ECON 200 or 3 hours of micro- or macroeconomics, and MATH 115

FIN 333 Investment Analysis and Portfolio Management (3) An introduction to financial markets and to basic valuation principles for financial instruments such as common stocks, bonds, and futures and options. These instruments are studied in the context of modern portfolio theory. Company and industry analytical projects provide the chance for practical experience. prerequisite: FIN 331

FIN 420 Risk and Insurance (3) Fundamental concepts of insurance/reinsurance products as risk management tools for individuals and corporations. Topics include the regulatory environment, financial operations of insurance companies and the role of the capital market in the risk management process.

FIN 430 Entrepreneurial Organization and Finance (3) Provides knowledge and training in the area of capital acquisition strategies and tactics through the life cycle of an entrepreneurial venture. Topics include startup and mezzanine financing, initial public offerings, capital budgeting and internal control techniques. This course builds on the knowledge gained in other business courses and should lead to a better understanding of the special problems of private equity financing. prerequisite: FIN 331

FIN 433 International Financial Management (3) In global financial markets, exchange rate risk exposure demands careful management and the use of financial instruments for hedging currency risk. These include currency options, futures and swaps. Working capital management and long-term financing and investment decisions are also crucial to today’s financial managers and need to be understood in the context of expanding global financial markets. prerequisite: FIN 331

FIN 450 Financial Modeling and Communication (3) Equips students with a working knowledge of the technical tools and methods of financial analysis and provides them with the ability to design and deliver professional-quality written, oral and electronic presentations of their analytical findings and recommendations. Topics include financial statements and analysis, financial forecasting, cash flow analysis and valuation. In addition, students learn how to create exhibits and written documents for the presentation of financial information, analysis and policy. prerequisites: FIN 330, FIN 331 and FIN 333

FIN 470 Real Estate Investments (3) Introduces the fundamentals of real estate investment analysis, including elements of mortgage financing and taxation, and applies the standard tools of financial analysis and economics to real estate valuation. Topics include traditional and nontraditional appraisal methods, techniques of real estate financing, real estate work-outs, innovations in real estate financing and the relationship to the macroeconomic environment. prerequisite: FIN 331
FIN 471 Real Estate Finance (3) Analyzes the instruments, techniques and institutions of real estate finance. Emphasis is placed on the sources of funds, mortgage risk analysis and typical policies and procedures used in financing residential and commercial properties. prerequisite: FIN 331

FIN 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

FIN 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

FIN 495 Internship in Finance (3) Provides students with practical real-world experience in an organization. The course requires a minimum of 120 hours of practical work with a qualified firm based on explicit statements of student responsibilities and faculty/firm monitoring mechanism. Students will work closely with both the firm and a faculty member. prerequisites: completion of 9 hours of finance courses, with a minimum GPA of 3.0 in these courses. Completion of MGMT 330 is recommended. Permission of the department chair is required.

FIN 497 Special Topics in Finance (3) The economics and finance faculty, from time to time, offer an opportunity to integrate new material into the undergraduate program reflecting changes in the field and in the educational needs of students. prerequisite: FIN 331

FIN 499 Independent Study: Finance (1-3) An independent study under the direction of a faculty member. For eligibility and procedures, see the Merrick School of Business Independent Study Policy.

FORENSIC STUDIES (FSCS)
Forensic Studies (FSCS) courses are offered by the School of Criminal Justice in the College of Public Affairs. Related courses are listed under Criminal Justice (CRJU).

FSCS 301 Forensic Science (3) Introduces students to forensic-science topics, including crime-scene processing, fingerprints, firearms and toolmarks, questioned documents, serology, fire and explosives, trace evidence, pathology and instrumental analysis. Lectures, demonstrations and basic laboratory exercises are used to present the subject matter.
**FSCS 307 Crime Scene Investigation (3)** Focuses on the scientific techniques used to investigate different types of crime scenes, including burglaries, murders, rapes, arsons and bombings. Students learn to recognize, identify, collect, preserve, transport, record and process physical evidence such as body fluids, body fluid stains, items of trace evidence, tire and shoe impressions, latent fingerprints, weapons and tools. Laboratory fee required.

**FSCS 400 Laboratory Safety and Quality Assurance (3)** Introduces students to the various principles of safety and quality assurance in a forensic laboratory. Laboratory safety topics include OSHA standards, material safety data sheets (MSDS), workplace safety, personal protective equipment, employer liability and employee responsibilities. Quality assurance topics include quality concepts and quality assurance principles, documentation, document control, standard operating procedures, proficiency testing, validation standards, test standards, instrument calibration, instrument maintenance, auditing principles, laboratory accreditation and analyst certification. prerequisites: Biology I, Chemistry I and II, Organic Chemistry I and II, and Physics I and II

**FSCS 401 Trace Evidence I (4)** Introduces methods of collecting, handling, preparing, identifying and comparing items of trace evidence. Topics include hairs, fibers, fabric, cordage, tape, glass, paint, paint chips, wood, vegetation, soil and other items requiring microscopic examination. Laboratory fee required. prerequisites: Biology I, Chemistry I and II, Organic Chemistry I and II, Physics I and II, and FSCS 400, 405 and 407

**FSCS 403 Trace Evidence II (4)** A continuation of Trace Evidence I, this course focuses on items of trace evidence requiring instrument analysis. Topics include flammable liquids, explosives, bank dyes, plastics, polymers, gunshot residue, metals and natural elements. Laboratory fee required. prerequisites: Biology I, Chemistry I and II, Organic Chemistry I and II, Physics I and II, and FSCS 400, FSCS 401, FSCS 405 and FSCS 407

**FSCS 405 Microscopy (4)** Provides instruction in the methods of collecting, handling, preparing, identifying and comparing items of trace evidence. Topics include use of the stereomicroscope, compound microscope, comparison microscope, microspectrophotometer, scanning electron microscope, polarizing microscope, fluorescent microscope and hot-stage microscope. These methods are demonstrated, and students conduct hands-on analyses of materials using some of this equipment. Laboratory fee required. prerequisites: Biology I, Chemistry I and II, Organic Chemistry I and II, and Physics I and II; prerequisite or co-requisite: FSCS 400

**FSCS 407 Instrumental Analysis (4)** The use of scientific instruments in forensic testing. Lectures and laboratories cover instrumentation theory, data systems, method development and qualitative and quantitative analytical techniques. Techniques discussed include gas chromatography (GC), liquid chromatography (LC), thin-layer chromatography (TLC), ion chromatography (IC), capillary electrophoresis (CE), infrared spectrometry (IR), mass spectrometry (MS) and X-ray diffraction (XRD). Laboratory fee required. prerequisites: Biology I, Chemistry I and II, Organic Chemistry I and II, Physics I and II, and FSCS 400 and FSCS 405
FSCS 410 Forensic Serology (4) Exposes students to both the theoretical and practical aspects of forensic serology. At the end of the course, students will have gained practical experience and will have a comprehensive knowledge of techniques presently being used in the forensic examination of body fluids. Laboratory fee required. Prerequisites: Biology I, Chemistry I and II, Organic Chemistry I and II, Physics I and II, and FSCS 400 and FSCS 405

FSCS 418 Mathematical Applications in Police Science (3) Introduces the various uses and applications of mathematics in law enforcement. Students learn to interpret and construct graphs and tables, calculate clearance rates and conduct trend analysis. The basics of operational research are explored relative to the needs of law enforcement. Probabilities and statistical techniques, which provide the basis for DNA interpretation, are addressed.

FSCS 424 Fourth Amendment: Interpretation and Application (3) Covers the doctrines and cases inherent in and arising from the Fourth Amendment: the law of arrest, search and seizure, standing, forfeiture and derivative evidence. Organized as a topical analysis, the course identifies the elements of each constitutional area and references major federal and state cases to illustrate the application and source of the rules.

FSCS 426 Innovative Investigative Techniques (3) Advanced techniques and strategies designed to further aid in investigating serious or complex crimes are presented. Particular attention is paid to the procedural aspects of police activity as they relate to the admissibility of evidence in state and federal prosecutions. Content includes improvements to basic investigative skills and a discussion of alternative tactics. Also covered are the necessary, suggested and explicit requirements for a federal Title III investigation and a Maryland wiretap investigation.

FSCS 430 Specialty Warrants, Wiretaps and Historical Conspiracies (3) Focuses on the extreme recourses available to law enforcement in investigating serious offenders. Content includes the legalities involved in obtaining trap and trace devices, electronic and video surveillance and body wires. These investigative techniques are then combined with traditional investigative techniques to develop evidence of historical conspiracies against criminal organizations.

FSCS 440 Advanced Crime Scene Investigation (3) Introduces students to improved casting techniques, enhanced latent fingerprinting techniques and sophisticated new photographic techniques, which contribute to the complex procedures of protecting and analyzing a crime scene and gathering information via ever-expanding skills and technology. Laboratory fee required. Prerequisite: FSCS 307

FSCS 454 Death Investigation (3) Presents the medical and legal investigation of death. The history and development of forensic pathology are considered. The course examines the manners of death, including homicide, suicide, accidental, natural and undetermined. Postmortem changes are also examined. The course is organized in a lecture series format. Lecture topics include sharp and blunt force trauma, thermal injuries, drowning, drug and alcohol abuse, pediatric forensics, gunshot injuries, asphyxiation and motor vehicle trauma.
FSCS 460 Forensic Photography (3) Familiarizes students with, and provides a basic understanding of, the camera (35mm, digital and video) with respect to crime scene analysis. Using photographic techniques, students learn how to document a crime scene and pertinent physical evidence including tire impressions, shoe prints, latent prints and blood spatter. In addition, students explore available light, flash, flash fill and painting-by-light processes. Students learn how to construct and maintain a photographic log and how to enter photographs into court as evidence. Students create a portfolio of their work. Laboratory fee required.

FSCS 480 Forensic Documentation (3) Prepares students to document and manage cases properly from inception to successful conclusion. Students gain a basic understanding of investigative and forensic case documentation.

FSCS 482 Moot Court and Trial Advocacy for Forensics (3) Students learn courtroom presentation techniques designed to elicit direct, persuasive and comprehensive testimony as it relates to various evidentiary issues at criminal hearings and trials. Students prepare and present direct testimony and are cross-examined by attorneys in a simulated courtroom setting.

FSCS 487 Field Internship in Forensic Science (3) Provides field experience to students through laboratory assignments with various criminal justice entities. This requirement is completed at the end of the program. Eligible for continuing studies grade.

FSCS 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

FSCS 494 Honors Project (3-6) Directed individual instruction in an advanced project of a student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

FSCS 496 Field Internship in Police Science (3) Broadens the educational experience of students through appropriate observational and work assignments with criminal investigation units. This requirement is completed at the end of the program. Eligible for continuing studies grade.

FSCS 497 Topics in Forensics (3) Examines special topics and issues in the field of forensics such as homicide investigation, blood spatter analysis, and forensic medicine and public health. Course may be repeated for credit when the topic changes.
**FSCS 498 Laboratory Topics in Forensics (4)** Examines special laboratory topics and issues in the field of forensics such as DNA analysis, questioned document examination and drug analysis. Course may be repeated for credit when the topic changes. Laboratory fee required. Prerequisite: none unless listed in the class schedule.

**GOVERNMENT AND PUBLIC POLICY (GVPP)**

Government and Public Policy (GVPP) courses are offered by the School of Public and International Affairs within the College of Public Affairs.

**GVPP 201 American Government (3)** An examination of the foundations, politics and institutions of the American political system. An introduction to the American ideology, the Constitution, the practice of politics and the institutions that constitute the governing structures of the country. [SOSC]

**GVPP 210 Global Politics (3)** Surveys global events and processes. The course covers issues of war and peace, arms and armaments, international governmental and nongovernmental organizations, the politics of global economic relations both among nations of the developed north and between northern and southern states. Humanitarian and environmental issues are also covered. Emerging trends in globalization, terrorism and ethnic conflict are considered. [SOSC]

**GVPP 279 Special Topics in International Affairs (3)** Exploration of topics in international affairs. Content varies depending upon the interests of faculty and students and may include studies in comparative or regional politics, international or global issues, or issues in foreign policy. Course may be repeated when topic changes.

**GVPP 284 Politics in Comparative Perspective (3)** Introduces students to the study of politics and political science. The course covers basic concepts in comparative politics, including ideologies, political behavior and political institutions. These concepts are used to explore the political experiences of representative countries from the Western democratic, transitional and developing worlds. Coverage is also given to the impact of globalization on selected countries. Specific countries covered will vary with instructor. [SOSC]

**GVPP 297 Topics in Politics and Policy (3)** Exploration of topics in politics and policy. The topic for study appears under that name in the class schedule. Course may be repeated for credit when the topic changes.

**GVPP 300 American Political Institutions (3)** The role and interrelationship of the federal, state and local governments in the formulation and implementation of public policy are examined. Major contemporary issues are explored to illustrate the policymaking process.

**GVPP 315 Public Policy Analysis (3)** Students gain a foundation in policy analysis, the process of creating, critically assessing and communicating information to determine which of various policy
alternatives will best achieve given goals within the American policy arena. Students understand the policy process and analysis by defining, assessing and describing public problems; identifying policy goals and criteria to assess possible strategies; crafting appropriate policy options by borrowing, adapting and creating; analyzing and predicting the effects of alternative policy options; and communicating policy advice in written and oral presentations.

GVPP 320 Public Administration (3) The problems of municipal, state and federal governments as these relate to organization, budgeting, personnel, welfare, control, reporting, public relations, federal-state-local relations, the city government in society and the division of state and federal powers.

GVPP 321 Leadership: An Experiential Approach (3) Organized around developing leadership, this course helps students to identify goals and objectives and achieve them. This course uses adventure education and outdoor experience to support the development of personal and professional competencies for individuals interested in careers in community-serving nonprofit organizations.

GVPP 322 Bureaucracy and Public Policy (3) An understanding of the institutional, political, legal and ethical challenges of public policy management in the contemporary administrative state.

GVPP 324 American Public Policy (3) Analysis of the formulation and implementation of governmental policies at all levels in such areas as art and culture, economic stability, income maintenance, education, the environment, public finance and older adults. Prerequisite: GVPP 300 or permission of the instructor.

GVPP 326 Urban Politics and Public Policy (3) An examination of the organization and main functions of urban government, the major participants and key issues in the urban political process, and the political relationship between cities and other levels of government. The distinctive characteristics of the political process in the urban setting with special emphasis on Baltimore.

GVPP 340 Constitutional Law (3) The role of the Constitution in the American system of government. Origins and historical development of the Constitution, the theory and operation of the federal court, and the effects of Supreme Court decisions on the relationship between different branches of government and on the rights of individuals in American society.

GVPP 341 Civil Liberties and the Bill of Rights (3) An advanced course about constitutional law that focuses on the Bill of Rights and issues of civil liberties that have arisen as the Supreme Court has changed its interpretation of the constitutional basis of decisions related to those rights. The course stresses legal reasoning and research skills; it also provides information about constitutional issues in relation to American governmental processes and policies. Suggested prerequisite: GVPP 340.

GVPP 344 American Presidency (3) An examination of the presidency in the American system of government. The powers of and limits on the president are studied, as are the relationships between the president and other major actors in the political system.
GVPP 345 The Legislative Process (3) An examination of legislatures in the American system of
government. Emphasis is placed on the study of the representative function of legislatures, the ways in
which they operate and their impact on public policy.

GVPP 348 State and Local Government (3) Emphasis on the organization, powers and functions of state,
local, county and municipal governments. Government in theory and practice at different levels in the
state of Maryland.

GVPP 360 Parties, Campaigns and Elections (3) A study of the rise, history and functions of political
parties in the United States. Campaign management and strategies as well as electoral tactics and
movements are also examined.

GVPP 362 Media and Government (3) A study of relationships among governments, public opinion and
the media. Analysis of the components of public opinion and their individual and collective influence on
government. The functioning of the media and its influence on both government and public opinion.

GVPP 381 American Political Thought (3) A study of the political thought in the United States that has
provided the foundations of American democracy from colonial times to the present, focusing on
political concepts, principles, ideas and issues.

GVPP 382 Political Ideologies (3) Focuses on the philosophical and ideological bases for the state. The
political economy and social structure of governing ideologies are examined and illustrated in
discussions about democracy, capitalism, liberalism, fascism, communism and socialism. Challenges to
these ideologies as presented by religion and nationalism are also discussed.

GVPP 384 Comparative Government (3) An examination of the historical and social background,
political process, governments and institutions of representative foreign governments, including Great
Britain, France and Germany. The identification, comparison and evaluation of the main components
and characteristics of the governing process are examined.

GVPP 385 International Relations (3) A study of concepts and principles of international relations; the
nature of national power; state systems; balance of power; internationalism; causes and consequences
of international stability; and trends in international relations, diplomacy and conflict resolution.
Prerequisites: GVPP 210 or CNCM 102

GVPP 386 American Foreign Policy (3) An examination of the political, economic and military
considerations involved in the formulation and implementation of United States foreign policy. Included
are the constitutional responsibilities for foreign policy, the economic context, military doctrine and the
country’s traditional international relationships.
GVPP 408 Methods in Government and Public Policy (3) Focuses on research and analytical techniques, statistical measurement and methods of science used in the study of governmental organizations, elections, political behavior and policy analysis.

GVPP 423 Public Budgeting and Personnel Administration (3) Focuses on budgeting and personnel administration at the national, state and local government levels. Examined are the form, content and processes of public budget development and its review, execution and management; also examined are the principles and functions of public personnel management, salary, schedules, unions, performance evaluation and retirement. Prerequisite: GVPP 320 or permission of the instructor.

GVPP 425 Administrative Law and Processes (3) The growth of the administrative process in the United States, the necessity for the delegation of legislative authority to administrative agencies and the need for judicial control of the bureaucracy. Emphasis on federal and state of Maryland administrative and regulatory processes.

GVPP 426 Foundations of Democracy I (3) Examines the scope and nature of the fundamental values reflected in our system of democratic governance. Democracy joins individual citizens, neighbors and communities. Acting together they form the essence of an associational life—that is to say, a life lived with reciprocal linkages to the well-being of others and to the common good. Particular attention is placed on the decision-making and organizational design systems that characterize our social, political and economic institutions as well as community-serving nonprofits.

GVPP 427 Foundations of Democracy II (3) The primary focus is an examination of the scope of ethical behavior reflected in the various aspects of the public policy process. Particular attention is given to the administrative implementation of policy and the fundamental values inherent in the American democratic process.

GVPP 461 Maryland Government Processes and Politics (3) A study of the structure of Maryland’s three branches of government and their relationship to interest groups, political parties and public policies.

GVPP 463 Interest Group Politics and Lobbying (3) Examination of interest groups as key components in the functioning of a pluralistic political system. The proliferation of interests from trade associations to public, nonprofit interests is documented. The techniques of lobbying are also explored.

GVPP 465 Survey Research and Public Opinion Analysis (3) The methodologies of survey research and public opinion analysis such as sampling procedures, questionnaire design and measurement issues. Students are introduced to evaluation of current political polls and become conversant with some of the key issues in designing and carrying out polls.

GVPP 470/GVPP 471 Individual Research (1-3) Individual research on a subject of mutual interest to both student and supervisory faculty. Depending on the scope and depth of research, 1 to 3 credits may be earned for the successful completion of either course. The student may, upon approval, take both
courses. prerequisites: a minimum of 12 credit hours in GVPP courses earned at the University of Baltimore and approval of the program director

GVPP 479 Special Topics in International Studies (3) In-depth examination of selected topics in international relations and/or comparative politics of mutual interest to faculty and students. Content varies according to the concurrent interests of faculty and students. The topic for study appears under that name in the class schedule. Course may be repeated for credit when topic changes.

GVPP 480 Environmental Politics and Policy (3) Focuses on the process of public decision-making as it relates to national and global environmental issues. The course addresses policy-making institutions and political behavior and how these have shaped American responses to such issues as clean air and water, energy use and natural resource consumption, among others. The course explores how agencies use risk assessment and other decision tools to establish regulatory objectives and how tax, regulatory and other policy tools are used to manage the environment.

GVPP 481 Globalization (3) Examines the rapid global changes shepherding in the 21st century. Students examine the social, economic and political effects of a smaller, more connected world. Global citizenship, intertwined economies and global institutions joining nation states as primary global actors are presented as macro changes to national identities, economies and public policies.

GVPP 482 Topics in Political Theory (3) Selected political theory examines perennial issues in political thought within the frameworks of classical, medieval, Renaissance, Enlightenment and modern political theory. Course may be repeated for credit when topic changes.

GVPP 483 Aging and Public Policy (3) The development of public policies as they relate to older Americans is examined. Analysis of the political attitudes and behaviors of older persons to determine the effects of older adults on the political process. Major federal legislation developed to respond to particular problems encountered by older persons is also analyzed (e.g., income maintenance, health care, transportation, housing, employment, nutrition).

GVPP 484 International Political Economy (3) Examination of the rapid changes in the postwar system of trade, production and finance. Students are exposed to discussions concerning the impact that these changes have presented to national identities and the public policy responses undertaken by states to maintain and enhance their position in the global trading system.

GVPP 485 The Far East in World Affairs (3) Political, economic and military aspects of India, Japan and Southeast Asia. Emphasis on their contemporary foreign relations.

GVPP 486 The Middle East (3) Political, economic and military aspects of Turkey, Iran, Egypt and the other Arab states, Israel and the eastern Mediterranean. Emphasis on foreign relations, the interrelationship of these powers and their relationships with Western European powers, the Soviet Union, the People’s Republic of China and the United States.
GVPP 487 Western Europe (3) Political, economic and military aspects of Austria, the Benelux countries, France, Italy and Germany with an emphasis on their contemporary foreign relations.

GVPP 488 The Commonwealth of Independent States and China in World Affairs (3) International relations of the Commonwealth of Independent States and the People’s Republic of China. An example of the political, economic and military considerations of these two countries in the conduct of their relationships.

GVPP 489 International Organization (3) The study of the development and evolution of international organizations, including the United Nations, regional and functional organizations, and nongovernmental organizations. The course focuses on the United Nations’ principal organs and specialized agencies and on major international intergovernmental organizations. Consideration is also given to nongovernmental organizations as well as informal organizations. Simulation or role-playing exercises or trips to the United Nations may be included at the instructor’s discretion. prerequisite: GVPP 201 or CNCM 102

GVPP 490/GVPP 491 Internship (3) Internship designed to broaden the educational experience of the student through work assignments with appropriate governmental agencies. Depending on the academic value of the work assignments, the student may enroll for up to a total of 6 credits in this internship. Course is eligible for a continuing studies grade. prerequisites: major in government and public policy or jurisprudence, a minimum of 12 credits completed in GVPP courses with a GPA of at least 3.0, and approval of the program director

GVPP 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

GVPP 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

GVPP 497 Topics in Government and Public Policy (1-6) Intensive exploration of topics in political science of mutual interest to faculty and students. Content varies according to the concurrent interests of faculty and students. The topic for study appears under that name in the class schedule.

GVPP 499 Senior Seminar (3) A senior-level seminar required of all government and public policy majors. Topics considered include the perspectives of the major subfields of government and public
policy and their relations with other disciplines. Students demonstrate their abilities to analyze, assess and write about relevant issues and practices in government and public administration. Open to students who are not government and public policy majors only by permission of the instructor.

HEALTH SYSTEMS MANAGEMENT (HSMG)
Health Systems Management courses (HSMG) are offered by the School of Health and Human Services within the College of Public Affairs.

HSMG 300 Health Indicators (3) A basic introduction to classical approaches typically used to describe population health. Emphasizes appropriate summaries and methods of health utilization data display in tables and in graphs. Use of rates, ratios and proportions are addressed. Introduces basic data management, exploratory data analysis and report generation. Students gain hands-on experience in using computer applications such as spreadsheets, statistical packages and database management while becoming acquainted with useful health data sources.

HSMG 301 Introduction to Health Economics (3) A survey course of the major topics in health economics. Students should develop an appreciation of the contribution economics make to the study of health and health policy. Topics to be covered include the demand for health and health care, workforce issues and the organization and financing of the U.S. health-care system. prerequisite: entry-level course in microeconomics

HSMG 302 Statistics for Health Management and Finance (3) An introduction to the purposes and practices of statistical and financial analysis in the health management sector. Students evaluate data analysis as presented in health management and finance literature. Students also learn to distinguish between information based upon speculation, intuition and wishful thinking and that based upon systematic analysis of data.

HSMG 370 Overview of Health-Care Delivery System (3) Provides a systematic overview of the U.S. health services system to familiarize the student with various mechanisms through which health services are delivered. Systems approach assists students in studying details of the various topics while maintaining a broad perspective of health-care delivery.

HSMG 371 Principles of Health-Care Management I (3) Provides an understanding of the conceptual foundations and practices of management within health services organizations. Presents an overview of the structure, operation and management of health services organizations. Perspectives from organizational theory and general management provide a conceptual basis for understanding and analyzing the practice of management in health service organizations. Uses the case study approach to develop management skills through the analysis of health-care industry examples.

HSMG 372 Principles of Health-Care Management II (3) Provides an understanding of the conceptual foundations and practices of management within health services organizations. Perspectives from
organizational theory and general management provide a conceptual basis for understanding and analyzing the practice of management in health-care organizations. Uses the case study approach to develop management skills through the analysis of health-care industry examples. Examines principles of management in health service organizations, specifically focusing on health professional accreditation, licensure, personnel issues, labor relations and selected issues in material handling particular to health services organizations. prerequisite: HSMG 371

HSMG 373 Health Policy and Politics (3) An in-depth study of a number of current policy issues in the American health-care system. Particular attention is paid to the roles and powers of nonmedical participants, including consumers, planners, administrators and policymakers.

HSMG 374 Epidemiology (3) Epidemiology is the study of how health and disease are distributed in populations and of factors that influence or determine this distribution. It is the basic science of public health. This course introduces epidemiology and epidemiologic approaches to the problems of health and disease. The basic principles and methods of epidemiology are presented with applications to public health and clinical practice.

HSMG 378 Introduction to Global Health (3) Provides an introduction to important global health issues, including health determinants and key areas of disease burden, and the role that new health technologies can play in solving these problems. Students examine case studies of successful global health interventions to understand features of successful programs. Working in small groups, students use their knowledge to design a solution to a real-world health challenge facing a developing country.

HSMG 379 Health Information Systems (3) Provides future health-care managers with an overview of health information systems. Students gain an understanding of selecting and using information systems and of reviewing applications of information technology in health care. The course explores current trends in information technology and describes how information systems can support high-quality patient care.

HSMG 470 Individual Research (3) Individual research on an academically sound project of interest in the health systems management field. Research is to be conducted in consultation with a monitoring faculty member. prerequisite: permission of the program director

HSMG 471 Special Topics in Health Systems Management (3) Specific topics, issues and trends in health management. Course may be repeated for credit when topic changes.

HSMG 475 Managed Care I (3) Introduces the basic theoretical concepts concerning care, practical management issues and areas of controversy as they pertain to managed care. Topics include benefits design in managed care, structure and management of health-care delivery systems, financing of managed care, medical-surgical utilization, disease management and future managed care trends.
HSMG 476 Managed Care II (3) Addresses theoretical concepts; health plan operational management; data and information management; public-sector managed care; regulatory, ethical and legal issues; and finance, budgeting, rating and underwriting plans. prerequisite: HSMG 475 or permission of the instructor.

HSMG 477 Health-Care Law and Risk Management (3) A study of the major legal issues encountered in the health-care field by administrators and practitioners. Topics include issues of health-care need, cost and quality control, Medicare and Medicaid, access to health care, the business roles of health institutions, health-care contracts and claims, right to treatment and federal health plans vs. private health coverage.

HSMG 490 Survey Research and Data Analysis for Health Services Administration (3) This hands-on course provides an overview of typical data analysis methods used in the health services setting, with an emphasis on surveys, including statistical analysis used for health management decision-making. Reviews typical graphical displays of data used in quality assurance programs. Introduces basic PC applications necessary for health managers such as spreadsheets and databases. prerequisite: APST 308 or equivalent

HSMG 491 Health Planning and Program Evaluation (3) Enriches students’ understanding of the complexity of the planning and evaluation processes used by health-care organizations. Covers theoretical and historical foundations of health planning, the relationship between health planning and regulation and the application of planning methods. Also presents various planning and evaluation models and techniques necessary to equip students with practical evaluation and planning skills.

HSMG 492 Internship (3) The internship serves as a bridge between theory and practice. Students apply their knowledge and acquire insights into the management of health service organizations. This 90- to 120-hour-based practicum offers opportunities for observation, participation and applying administrative skills in the institutional setting. Course is eligible for continuing studies grade.

HSMG 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors program director

HSMG 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director.
HSMG 498 Strategic Management in Health Care (3) Examines strategic management in health-care organizations. Includes discussions of the nature of strategic management; the environment of health organizations; and methods of formulating, implementing and controlling the strategic management of health-care delivery. Prerequisites: HSMG 300, HSMG 301, HSMG 370 and HSMG 371 or permission of the program director

HISTORY (HIST)
History (HIST) courses are offered by the Division of Legal, Ethical and Historical Studies in the Yale Gordon College of Arts and Sciences.

HIST 101 World History to 1500 (3) Explores the emergence of the modern world, from prehistoric times to early modern times, through an examination of selected themes across the world’s cultures. Themes may include the arts, society and religion, global interaction of cultures or competing ideas of human dignity and self-determination. Special emphasis is given to the role of deep cultural roots over the long term of historical development and the long-term effect of traditional values and cultural practices. [HIPL/HAT]

HIST 102 World History Since 1500 (3) Explores the emergence of the modern world, from the end of the 15th century to contemporary times, through an examination of selected themes across the world’s cultures. Such themes may include the arts, society and religion, global competition and human rights, technological change, nationalist movements and self-determination. Special emphasis is given to the interaction and interdependence of the world’s population as a whole. [HIPL/HAT]

HIST 111 Early America (3) This course focuses on the history of the United States to 1860 with emphasis on large-scale social and cultural phenomena such as the origin and impact of colonial migration, the forming of regional identities, the role of political ideologies and the influence of social movements. [HIPL/HAT]

HIST 112 Modern America (3) Focuses on the history of the United States from the 1860s to the present with emphasis on major social and cultural trends and movements. Topics include impact of race and ethnicity, rise of the New South, role of political ideologies, reform and labor movements, and migration and immigration. The history of ordinary people is stressed. [HIPL/HAT]

HIST 121 World History of Art to 1500 (3) Surveys human aesthetics up to the Renaissance, introducing students to the iconography and the artistic connections between global cultures, including those of Africa, Asia and Europe. While developing critical-thinking and communication skills, students explore human creations inspired by religion, the natural world and love. Incorporating the printed works of critics and historians, museum pieces, archeological evidence and electronic media, this course teaches students how to interpret an image as a primary source document. Emphasizes the political, religious and urban contexts of artistic creation. [HIPL/HAT]
HIST 122 World History of Art From 1500 (3) Surveys human aesthetics beginning with the Renaissance, introducing students to the iconography and the artistic connections between global cultures, including those of Africa, Asia and Europe. While developing critical-thinking and communication skills, students explore human creations inspired by religion, the natural world and love. Incorporating the printed works of critics and historians, museum pieces, archeological evidence and electronic media, this course teaches students how to interpret an image as a primary source document. Emphasizes the political, religious and urban contexts of artistic creation. [HIPL/HAT]

HIST 197 Conflicts in History (3) History is an ongoing inquiry and debate, rarely—if ever—set in stone. Introduces students to the major themes of history and the ingredients of the discipline. Presents a selection of major human conflicts of the past 3,000 years and the historical debates they have inspired. Students discover the roots and consequences of American, European or world conflicts in history, using primary sources to hear the actors in their own words. Leads to discovery that many of the problems of the past still have effects in the present. [HIPL/HAT]

HIST 240 Everyday Lives (3) Social history illuminates the lives of ordinary people. This skills course introduces the methods of the social historian to the beginning student. Students read examples of masterful social histories and engage in original research to produce their own depictions of everyday life in a particular period of the past. [HIPL/HAT]

HIST 290 Great Issues in History (3) Focusing on a single topic or theme of historical and contemporary interest, this course emphasizes the roots of great issues in history. The course focuses on understanding and applying historical methods, analyzing issues in their broader historical context and analyzing a variety of historical sources. The topic for a given semester appears in the schedule of classes. [HIPL/HAT]

HIST 295 The Historian’s Toolkit (3) An examination of the methods of historical research and presentation. Among the methods considered are the gathering of evidence, procedures for criticism and interpretation of primary sources, and special techniques such as collecting and using oral testimony. Deals with the application of historical methods in a number of vocational settings from museum and archival work to planning and policy studies. Required of all history majors.

HIST 310 Ancient Civilizations (3) The origins of European civilizations are traced to the societies of the Ancient Near East, Greece and Rome. Special emphasis on the development of complex societies and on such themes as the individual and society; freedom and slavery; and magic, religion and rationalism.

HIST 311 Emergence of Europe (3) A study of topics in the development of European culture from the decline of Rome through the Renaissance (ca. 400-1500). Special emphasis on classical, Christian and Arab influences.
HIST 312 Age of Revolutions (3) A study of European culture and thought from the Renaissance to the end of the Napoleonic Wars. Special emphasis on the origins and impact of the scientific, industrial and political revolutions.

HIST 313 Europe 1815-1914 (3) Surveys European history in the 19th century, a time of enormous cultural, social, economic and political change. Focuses on the dominant powers of Europe—England, France, Germany and Russia—and examines the impact of new ideologies such as nationalism, liberalism, socialism and right-wing radicalism.

HIST 314 Europe 1914-45 (3) World War I destroyed the institutions and values of traditional European society and ushered in a new era of European history. This course covers the causes, experience and impacts of World War I and World War II; the rise of extremist ideologies in the interwar era; and the development of modernism in European society in the years up to 1945. prerequisite: 3 credits of history (any level), at UB or at another institution, with a grade of C- or better

HIST 315 Europe Since 1945 (3) This course examines all aspects of European history since 1945, focusing on trends and issues in both western and eastern Europe. [HIPL/HAT]

HIST 331 English Law to 1689 (3) The study of English law as it functioned in constitutional, political and social life from the Anglo-Saxon period to the Glorious Revolution of 1689. The precedents for American law are discussed.

HIST 332 English Law Since 1689 (3) The study of English law as it functioned in constitutional, political and social life from 1689 to the modern period. The precedents for American law are discussed.

HIST 340 American Legal History (3) A general survey of the development of American law from colonial times to the present. Emphasizes the importance of social change and political conflict in legal development. Topics include the reception of English law in the colonies, the establishment of the federal court system and the struggle to modernize American law in the 19th and 20th centuries. Coursework involves the analysis of original legal documents and materials.

HIST 344 World War II (3) A comprehensive study of the origins, events and effects of the 20th century’s second experience in total war.

HIST 350 History of U.S. Foreign Relations (3) Examines major international events of the past 120 years and the ways in which the United States has led and/or responded to them. Also examines different approaches to the study of U.S. foreign relations to discover and understand the complexity of major problems in the field. Helps expand students’ understanding of U.S. and world history, the globalization of the world in which they now live, the relevance of U.S. foreign relations to their lives and their own potential as agents of change.
HIST 370 Old South and Slavery (3) A social, economic and political study of the development of American slavery and the culture of the Old South. Special emphasis on the plantation system and the emergence of sectionalism.

HIST 375 Civil War and Reconstruction (3) A social and political study of the era of disunion and reunion, 1848-77, with special emphasis on the causes of the conflict and its impact on race relations, national institutions and the Southern states.

HIST 377 New South and Civil Rights (3) A study of the American South from Reconstruction to the present, with special emphasis on the economic and political impact of the Civil War and industrialization, the rebirth of Southern culture and literature, and race relations.

HIST 380 The Chesapeake World (3) Focusing on the period from 1600 to 1830, this course explores central themes in the social, economic and intellectual history of the Chesapeake Bay region. The region, including Virginia, Maryland and the Eastern Shore, is examined as a case study of Anglo-European colonization and settlements in the New World. Topics include the pattern of migration to the region, conflict between colonists and Native American peoples, emergence of the plantation system and the origins of slavery. Recommended for students who wish to take HIST 382.

HIST 381 American Cities (3) Urbanization as a major theme in American history, beginning with the establishment of American cities and ending with contemporary urban life. Topics include city and the frontier; the premodern city; the emergence of industrial cities; urban transportation networks; immigrants, bosses and reformers; the emergence of urban institutions; the growth of suburbia; and the urban crises of the 1960s.

HIST 382 History of Baltimore (3) Social and economic changes that took place in American cities. Emphasis is placed on a detailed study of Baltimore as it exemplified changes taking place during the period. Major themes are industrialization and racial and ethnic diversity.

HIST 383 Community History (3) Using case studies, this course considers the history of various efforts at community-making in the United States. The role ethnicity, class, race, gender, occupation, religion, age and affinity have played in different places at different times are explored as are nostalgia’s importance to the idea of “community” as a lost quality.

HIST 390 Film and History (3) A close study of historic events, people and issues as interpreted and presented in visual media, primarily feature films, documentaries or television series. Historical subject and type of media program varies from semester to semester. May be repeated for credit when the topic changes.

HIST 420 America Since 1940 (3) Covering in depth and in detail the period from 1940 to about 1970, this course offers an exploration of major issues in recent American history. Topics include the impact of World War II on American society, origins of the Cold War, emergence of McCarthyism, history of the
civil rights and women’s movements, polarization of American society in the 1960s, American involvement in Southeast Asia and major trends in the social and intellectual climate of the era.

HIST 434 American Constitutional History (3) A historical study of the background and establishment of the American Constitution and its political and social effects on American life from 1789 to the 20th century.

HIST 438 Great Trials in History (3) A study of the interplay between society and the conduct and outcome of some controversial criminal trials. With each offering of the course, some of the following trials are studied: Guiteau, Dreyfus, Casement, Sacco-Vanzetti, Scopes, Scottsboro, Hiss and Rosenberg.

HIST 440 History of Common Law (3) A study of the common law of Great Britain and the United States through its development in medieval Europe and into the modern period. Both procedure and substance are emphasized. Parallels the School of Law course but is conducted at an undergraduate level. Credit earned in this course cannot be transferred to the School of Law.

HIST 445 Topics in the History of Religion (3) Intensive study of particular topics in the history of religion, ranging from Christianity and Judaism to Eastern religions or American religious history. Topic varies depending on the interests of the faculty and students. May be repeated for credit when the topic changes.

HIST 460 The Cold War, 1945-90 (3) For almost half a century following World War II, the United States and the Soviet Union engaged each other and their respective allies in an epoch-making global confrontation known as the Cold War. This course explores the origins, evolution and effects of that conflict and its role in shaping modern history. Topics include the nuclear arms race, the series of crises involving Berlin, the U-2 affair, the Cuban missile crisis, related conflicts in Southeast Asia, détente, impact on American culture and more.

HIST 463 History of Germany (3) A study of Germany from unification to the present, with an emphasis on German politics, society and economics before 1933, the rise and fall of National Socialism, the division of Germany after World War II and the unification of Germany in 1990.

HIST 465 Topics in Eastern European History (3) Intensive exploration of a geographic area or historical theme within Eastern Europe. The course may focus on such topics as southeastern Europe, the Baltic region and east central Europe. The topic to be studied appears in the class schedule. May be repeated for credit when the topic changes.

HIST 466 History of Africa (3) Studies in African history from early cultures to the late 19th century.

HIST 468 American Political History (3) Intensive study of dominant political issues in American society from the founding of the colonies to the recent past.
HIST 470 Modern China (3) Introduces the changes and continuities of modern China since 1860. Students learn to apply their knowledge of Chinese history and historical methodology to analyze current affairs. Students read and analyze primary and secondary sources of modern China and engage in original research to construct their own analysis of one aspect of modern Chinese history. [HIPL]

HIST 472 Modern Japan (3) Explores the historical transformation that has led to the development of modern Japan, from the slow decline of the Tokugawa shogunate in the 19th century to the present. Covers such topics as the fall of the Tokugawa order; Meiji Restoration and Japan’s rapid modernization; the rise of Japanese imperialism and its demise through the Pacific War; and Japan’s post-war development in political, economic, social and cultural realms. While developing critical-thinking and communication skills, students also learn to apply their knowledge of Japanese history to analyzing aspects of modern Japanese life.

HIST 473 U.S. Women’s History (3) Using case studies, this course examines the changing roles of women in American society. Topics such as family, work, education, sexuality and women’s rights are explored. Emphasis is placed on both the variety of women’s experiences and the evolving concerns and position of American women as a group.

HIST 474 Women and Family in European History (3) The history of European women from the old regime of the 17th and 18th centuries to the present. Topics include the private and public lives of women; changes in family structure, courtship and fertility; education, work and professional opportunities; and the social and political emancipation of European women.

HIST 477 Technology and History (3) Selected topics in the cause-and-effect relationship of technological developments on societies in various historical periods.

HIST 478 History of American Business (3) A historical survey of American business and labor from Colonial America to the recent past.

HIST 480 Introduction to Public History (3) A survey of the professional applications of historical analysis in settings outside academe focusing on the practice of history in museums, archives, historical societies and preservation. Guest speakers and site visits are featured.

HIST 482 Introduction to Historical Preservation (3) An introduction to historic preservation issues, including law, economics, nonprofit and not-for-profit organizations, site interpretation, architectural history, industrial archeology, relevant federal and state programs, community revitalization and landmark commissions. prerequisite: HIST 295

HIST 490 Internship (3) Provides an opportunity to gain experience in the practical application of historical analysis through work assignments with the appropriate historical and related cultural agencies. The course instructor and staff at each agency supervise the student’s participation. Course is eligible for a continuing studies grade. prerequisite: approval of the instructor
HIST 492 Independent Study (1-3) Provides for individual work in research. Prerequisites: presentation of a research proposal to the program director and permission of the program director.

HIST 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. Prerequisites: 3.3 GPA and permission of the Denit Honors Program director.

HIST 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. Prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director.

HIST 495 Senior Seminar in History (3) Students read about and conduct research on a selected topic in history. Emphasis is on the preparation of a major paper based on primary sources. Topic changes from semester to semester.

HIST 496 Seminar in Public History (3) Students research and present a major project on a selected topic in public history. Projects are based on collaboration with external organizations or groups.

HIST 497 Special Topics in History (3) Intensive exploration of topics in history of mutual interest to faculty and students. Content varies according to the interests of the faculty and students. The topic studied appears under that name in the class schedule.

HUMAN SERVICES ADMINISTRATION (HSER)
Human Services Administration courses (HSER) are offered by the School of Health and Human Services in the College of Public Affairs.

HSER 100 Introduction to Human Services (3) The social basis for human service needs is examined with special consideration given to how societies respond to these needs through the formation of service delivery systems. Case studies of contemporary human service delivery systems are emphasized.

HSER 200 Models of Effective Helping (3) Provides students with an overview of contemporary theories and techniques of helping relationships. Basic communication skills (such as active listening, responding and interviewing skills) for building helping relationships are developed. Professional and ethical issues in the helping profession, as it relates to human services, will all be investigated.
HSER 300 Grass Roots Strategies of Social Changes in Human Services (3) Exploration of various frameworks concerned with strategies and techniques for planned social change relevant to community education, empowerment, organization and development at the grass roots level.

HSER 310 Family System Dynamics (3) Examines the components of family structure, interactions and reinforcing aspects of family dynamics on the maintenance of roles, types of families, life-span changes, function and dysfunction in the context of the greater society.

HSER 320 Gender and the Work Environment (3) Examines work environment and profession-related gender issues from legal, sociological, psychological and economic viewpoints. Topics may include gender stereotyping, career development, sexual harassment and work-life balance. Explores practices and processes that embed gender into institutional structures.

HSER 330 Human Services Delivery Systems and Diversity (3) Examines various issues in the context of human services delivery systems within organizational environments possessing many levels of diversity including gender, race, religion/spirituality, types of professions/credentials, levels of education, socioeconomic status, sexual orientation and physical ability. Explores how one’s own limitations, values, reaction patterns and culture may impact policies, practices, processes and interventions. Investigates perspectives of leadership, employees and service recipients.

HSER 340 Case Management and Documentation (3) Serves as an introduction to the concept of case management in the delivery of human services. The course is presented in the logical sequence, from intake interview to termination of service, focusing on assessment, planning and implementation of case management services. The course explores the case management process as it relates to organizational, legal and ethical issues and emphasizes the skills and knowledge base required to be an effective case manager.

HSER 350 Social Research Methods for Human Services (3) An analysis of principal research methods employed in the applied social sciences with particular emphasis on applications for human services. Topics include research design, data collection and data analysis. Practical applications are required through student projects.

HSER 400 Field Practicum (3) Provides students with the opportunity to apply the knowledge gained in the classroom to experience in a human services-based organizational setting. Students will be exposed to and/or engage in activities, such as supervision, special projects, case management, budgeting and public relations. Students must complete a minimum of 100 hours. Both the faculty practicum coordinator and the agency site supervisor will guide and evaluate students throughout the practicum. prerequisites: HSER 100, HSER 200, HSER 340 and permission of the program director

HSER 420 Program Design and Proposal Writing (3) Builds on the ecological systems perspective that views program development as an arena for social change. The course illuminates how values, needs and resources influence program design and decision-making. Employing a major practice strategy used
in community development, the course offers a contingency framework that teaches students about the choices, decisions and situations for planning new programs or adapting others within the context of diverse communities. It sharpens the skill set necessary for program development within the context of quality improvement and management. prerequisites: HSER 100 and HSER 200

**HSER 430 Fundraising and Grant Writing (3)** Provides students with a thorough grounding in the principles and practices of fundraising and grant proposal development. The course is structured to mirror the process of fundraising management and by the course’s conclusion, students will have developed a fundraising plan or a grant proposal for their own nonprofit organization or a case study of the organization. The course considers planning frameworks and a variety of conceptual tools exploring donor behaviors (the underlying psychology and sociology) and each major form of fundraising. The course concludes with an examination of the critical managerial and sectoral issues impacting fundraising functions, such as campaign integration, benchmarking of performance, and public trust and confidence. prerequisites: HSER 100 and 200

**HSER 440 Evaluation of Human Services Programs (3)** Provides students with a conceptual framework, sets of practical skills and related understandings about planning and evaluating human services programs in a range of settings. Programs are considered in a broad sense as a set of resources organized for a purpose, while a human service is considered as work or activity intended to benefit others. prerequisites: HSER 100 and 200

**HSER 450 Human Services Management (3)** Designed to assist students with exploring management and administrative roles in human service organizations. Students are introduced to relevant theories, concepts and practices that compose the foundation for understanding management. Students examine common concerns, problems and effective strategies of contemporary management of human services organizations at the nonprofit, local, state and federal levels. prerequisites: HSER 100 and HSER 200

**HSER 470 Senior Seminar in Human Services (3)** A senior-level seminar consisting of an extensive exploration of current topics in human services of mutual interest to faculty and students. Examples of the content may include welfare reform, political and social legislation as well as policy and program issues. prerequisite: senior-level standing

**INFORMATION SYSTEMS (INSS)**
Information Systems courses (INSS) are offered by the Merrick School of Business.

**INSS 100 Computer Information Systems (3)** A semester-long organizational simulation is used to provide students with an understanding of the concepts, terminology and operations that relate to general computer use and the essential knowledge needed to function productively and independently with a computer. Skills learned include the ability to solve problems using software, to adapt to new technological environments, and to keep information organized and communicate effectively using technology. Topics include group work and communications using email and online discussion boards,
an introduction to data analysis using spreadsheets, graphical and presentation software, writing reports and papers using word processors and using database software to query organizational data. [COSC/P&P]

INSS 209 Introduction to Programming (3) Develops logical and analytical thinking through basic programming concepts like looping, simple sequence, decision and branching. Provides an exposure to algorithm development for the design of simple programs. Topics include basic concepts of data and file organization.

INSS 225 Structured Programming Using Procedural Languages (3) Introduces good coding practices using structured programming concepts. Modules and shared routines with single-entry and single-exit points are emphasized. Sequence, selection, repetition and nesting techniques are reinforced as acceptable means of controlling program logic. Students work on projects that involve analyzing, designing, coding, executing and testing programs. prerequisite: INSS 209 or permission of the instructor.

INSS 300 Management Information Systems (3) Provides a fundamental knowledge of information systems and technology (IS&T) issues from the perspective of business professionals. This includes information technology concepts and vocabulary as well as insights into IS&T applications in business organizations. Topics include searching and extracting information to solve business problems; the role of organizational context in IS&T effectiveness; the economic, social, legal and ethical impacts of IS&T; the systems life cycle approach; and key technologies such as the Internet, networking and database management systems. This course satisfies the University’s information literacy requirement in addition to the computer literacy general-education requirement. [COSC/CTEK]

INSS 315 Information Technology (3) Information technology stressing the personal computer (PC) as a critically important tool in today’s business environment. An advanced foundation in information technology enabling students to support personal computer users in selecting, acquiring, customizing, optimizing, maintaining and upgrading their PC hardware and system software. Topics include characteristics of CPUs, input/output devices, motherboards and expansion cards, operating systems and graphical user interface, memory management, system performance benchmarks and techniques, hardware and software technical selection, hardware and software upgrading and installation, and setup of system software. Students are introduced to local area and wide area network technologies. Ethical and legal issues related to computers, especially to PCs, are presented. prerequisite: INSS 100 or equivalent.

INSS 370 Project Management (3) This course provides the fundamentals of project management, with a focus on managing information systems projects. Upon successful completion of this course, candidates may be eligible to take the Project Management Institute (PMI) exam for Certified Associate in Project Management (CAPM). prerequisite: INSS 300 or permission of instructor.

INSS 401 Internet and Business (3) Provides an understanding of the Internet and the information superhighway through hands-on experience with the main Internet services and applications. The
course also answers questions about how to use the Internet for communications; search for free information, files and programs; and create a presence on the Internet for individuals and businesses using hypermedia and the Web. prerequisite: INSS 300 or permission of the instructor

**INSS 406 System Analysis and Logical Design (3)**
Introduces key principles and techniques used to develop or modify information systems to support business undertakings. The course covers the lifecycle of software systems, with an emphasis on the analysis and logical design phases. Topics include the determination and modeling of the requirements of information systems and software, business process modeling and reengineering, data modeling, data gathering and requirements specification, interface design, and the development of system prototypes, including electronic forms and reports. Students gain experience with leading industry development tools such as those from Oracle and PeopleSoft. prerequisite: prior or concurrent enrollment in INSS 300 or permission of instructor

**INSS 421 Design of Database Management Systems (3)**
Introduces the concepts and technologies relevant to the design, development and implementation of database systems. Data modeling concepts and principles of database design are used to illustrate the construction of integrated databases. Database management systems (DBMS) and their purpose, advantages, disadvantages and application in business are covered. prerequisite: INSS 300 or permission of the instructor

**INSS 422 Business Intelligence (3)**
Business intelligence (BI) refers to the use of information technology to analyze complex information about an organization and its competitors for use in business planning and decision-making. This course details the components of BI systems, important techniques and the critical variables needed to implement an effective BI program. The course takes a managerial approach to Business intelligence, emphasizing BI applications and implementations. The course will involve use of industry standard software packages. prerequisites: MATH 115 and INSS 421, or permission of instructor

**INSS 427 Business Data Communications (3)**
Provides a basic understanding of terminology, techniques and concepts of business data communications. The emphasis is on both the technical aspects of data communication and related managerial issues. Topics include, but are not limited to, physical aspects of data communication, common carrier services, local area networks, wide area networks, Internet and electronic commerce, network management and network applications. prerequisite: INSS 300 or permission of the instructor

**INSS 431 Electronic Commerce (3)**
Provides both a managerial and technical perspective on e-commerce applications, with an emphasis on the operational, tactical and strategic applications of e-commerce and the major technologies involved in their development. The course covers the different types of e-commerce, the technologies and techniques involved and the major issues facing organizations conducting electronic commerce. Managerial topics include mobile commerce; business, consumer and government e-commerce uses; and legal, ethical and regulatory issues. Technical topics explored include network infrastructure, e-commerce security and technologies for data transformation and exchange, such as XML. prerequisite: INSS 300
INSS 452 Web Server Management and CGI Programming (3) Provides intermediate skills in developing interactive, server-based applications using the Web common gateway interface (CGI) and includes the installation and management of Web server software, e.g., Apache and other freeware. PERL and CGI programming, Visual Basic, C or C++ may be used as an alternative CGI programming language. prerequisites: INSS 401 and INSS 225, or INSS 327, or permission of the instructor

INSS 453 Internet and Network Security (3) Familiarizes students with basic security threats on networks connected to the Internet and basic tools to provide user and system security resources available on the Internet. The main focus is on digital and infrastructure security. Topics include security framework overview; footprinting; scanning; enumeration; hacking framework; backdoor servers and Trojans; root-kits; Windows (98/NT, 2000/XP) and Linux vulnerabilities; dialup, VPN and network devices vulnerabilities; firewalls; Intrusion Detection System (IDS); Denial of Service (DoS) and Ddos; buffer overflow; spyware; phishing; social engineering and protecting the Web end-user. This is a project-oriented course using a restricted-access UB lab to practice the use of hacking and security tools. prerequisites: INSS 315 and INSS 427 or permission of the instructor

INSS 454 Operating Systems (3) Functions of operating systems, including process management and concurrency, memory management, scheduling, and user and file management security are studied, as are hardware features required by modern operating systems. Course content also includes a study of symmetric multiprocessing, clusters’ hardware and operating systems concepts, and the capabilities of several commercial operating systems. Provides hands-on experience in a specialized laboratory that includes PC, workstation, and mini- and mainframe computer operating systems, including system setup and basic system administration functions. prerequisite: INSS 225 or INSS 327 or permission of the instructor

INSS 470 IT Service Delivery (3) As businesses become more dependent on technology, it is crucial that a company’s IT systems are designed and delivered to consistently support its business processes. One increasingly popular way to achieve this, particularly as applications hosted and managed “in the cloud” become more pervasive, is to take a service management approach. This course presents the fundamentals of IT service management, including service management strategies, the service lifecycle, metrics and performance indicators, and the impact a service management approach has on issues such as data management, virtualization and security. The course material will prepare students for the ITILV3 Foundation certification exam. prerequisites: INSS 370 or permission of instructor

INSS 490 MIS Capstone Project (3) Student teams undertake an MIS project in a public- or private-sector organization. Projects emphasize the integration of concepts and skills developed in prior courses. Projects typically include elements of analysis and design as well as database, telecommunications or management of information systems. prerequisites: all MIS core courses and permission of the instructor

INSS 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the
concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

INSS 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

INSS 495 Internship in MIS (3) Provides students with practical real-world experience in an organization. The course requires a minimum of 120 hours of practical work with a qualified firm based on explicit statements of student responsibilities and faculty/firm monitoring mechanism. Students will work closely with both the firm and a faculty member. prerequisites: completion of 15 hours of INSS courses (excluding INSS 300) with a minimum GPA in those courses of 3.0 and permission of the instructor

INSS 497 Special Topics in Information Systems (3) The INSS faculty, from time to time, offer an opportunity to integrate new material into the undergraduate program reflecting changes in the field and in the educational needs of students. prerequisites appear in each semester’s class schedule

INSS 499 Independent Study: Information Systems (1-3) An independent study completed under the direction of a faculty member. For eligibility and procedures, see the Merrick School of Business Independent Study Policy.

INTERDISCIPLINARY STUDIES (IDIS)
Depending on the course, Interdisciplinary Studies courses (IDIS) are offered by the Yale Gordon College of Arts and Sciences, the College of Public Affairs and/or the Merrick School of Business.

IDIS 101 First-Year Seminar: Introduction to University Learning (3) Helps students to develop key skills, knowledge and habits of mind necessary for academic and professional success. In an active-learning environment, first-semester students and their instructors explore the nature and practice of intellectual inquiry in a university environment. Applied exercises reinforce core study/learning skills in the context of real-time demands, while structured self- and group reflection develops concurrent skills in personal, academic and professional goal-setting. Students become more intentional, lifelong learners, with skills in teamwork and critical thinking that can become fundamental elements of personal effectiveness in increasingly complex and globalized communities and work environments. [PPS]
**IDIS 102 Critical Thinking and Multicultural Awareness (1)** Critical thinking is the ability to be both systematic and creative in analyzing and synthesizing information to solve problems, and multicultural awareness includes the knowledge, skills and personal attributes college graduates need to live and work in a diverse world. Students explore critical thinking from both a systematic “left brain” and creative “right brain” perspective and then apply that understanding to develop an awareness of multicultural competency issues. prerequisite: IDIS 101

**IDIS 110 Introduction to Information Literacy (3)** Being able to find, assess and use information effectively is a fundamental skill needed in any career as well as in day-to-day life. This course teaches students how to define their information needs, search for information effectively, make logical arguments, understand the different forms information can take, critically assess information they find and present data in an appropriate way. In addition, it provides students with the skills necessary to evaluate the kinds of opinion and argumentation they encounter outside the University.

**IDIS 201 Introduction to Interdisciplinary Studies (3)** What does it mean to learn across the curriculum and to address problems from an interdisciplinary perspective? This course provides an introduction to the interdisciplinary studies major. Topics and activities include development of your own intentional plan of study for the major, introduction to interdisciplinary thinking, survey of and introduction to learning methods and University resources for taking full advantage of the Interdisciplinary Studies major.

**IDIS 298 Special Topics in Interdisciplinary Studies (3)** Exploration of topics in interdisciplinary studies of mutual interest to faculty and students. Content varies depending on the interests of faculty and students. Course may be repeated for credit when topic changes.

**IDIS 300 Ideas in Writing: Purpose and Strategy (3)** Advanced study of strategies applicable to writing both within and beyond the University. Stresses the interrelationships of careful reading, critical thinking and effective writing. Building on skills mastered in lower-division composition courses, students develop the ability to analyze the contexts within which they write, to define their purposes clearly and to employ appropriate strategies for accomplishing those purposes. Assigned readings illustrate a variety of writing strategies and promote serious consideration of important ideas and concepts. Students are required to take the placement test for this course prior to their second semester of registration at UB. prerequisite: adequate score on placement test or completion of WRIT 200 with a grade of pass

**IDIS 301 World Cultures (3)** An interdisciplinary study of different cultures including economic, political, social and cultural systems and structures and their interrelationships. Provides an opportunity for students to compare their own culture with others through study and research. [GIK]

**IDIS 302 Ethical Issues in Business and Society (3)** Provides a structured experience in which students from the School of Business and the College of Arts and Sciences explore together the interrelationships between business and various other sectors of society, e.g., the individual, government and
international environment. Emphasis is placed on values and on the ethical issues implicit in those
interrelationships. [CTE]

**IDIS 304 Arts and Ideas (3)** An interdisciplinary study of enduring works of imagination and intellect that
have contributed to the making of contemporary civilization. Examples of art, architecture and music are
used to illuminate central themes in literature, philosophy and history. The cultural resources of the
Baltimore area are used wherever appropriate. [ART/CTE/GIK/HAT]

**IDIS 497 Interdisciplinary Studies Portfolio (3)** In this capstone course, students examine the process of
interdisciplinary problem-solving through a review of epistemological theory; visual and verbal rhetoric;
the psychology of creativity, cognition and learning; and interpersonal and small-group communication.
Each student creates an interdisciplinary project and prepares a learning portfolio that contains a
personal mission statement, a revised version of the student’s original program plan with narrative
commentary and a reflective journal.

**IDIS 498 Special Topics in Interdisciplinary Studies (3)** Intensive exploration of topics in interdisciplinary
studies of mutual interest to faculty and students. Content varies depending on the interests of faculty
and students. Course may be repeated for credit when topic changes.

**JURISPRUDENCE (JPLA)**
Jurisprudence courses are offered by the Division of Legal, Ethical and Historical Studies in the Yale
Gordon College of Arts and Sciences.

**JPLA 200 Introduction to Jurisprudence (3)** Introduces students to jurisprudence by exploring a number
of fundamental questions related to law and its role in our personal, social and political lives. Covers
both historical and contemporary accounts of the nature of law, the relationship between law and
morality, and legal reasoning. Emphasis is on development of students’ critical-thinking and written and
oral communication skills.

**JPLA 400 Topics (3)** Varying course offering addressing a jurisprudence topic or cross-listing a graduate
course of interest to jurisprudence majors. Course may be repeated for credit when topic changes.
prerequisite: permission of the program director

**JPLA 496 Internship (3)** Working at an organization, government entity or business that provides an
experience relevant to the study of jurisprudence. Students select an appropriate site and develop a
plan for the internship in consultation with the program director. prerequisite: permission of the
program director

**JPLA 498 Capstone Project (3)** Serves as the culmination of the student’s program of study in
jurisprudence and is required for all jurisprudence majors. Students consult with the instructor or
another faculty member with relevant expertise to develop a mutually agreed-upon capstone project
that demonstrates the student’s understanding of jurisprudence. prerequisite: permission of the program director and completion of all other required courses in the major

**MANAGEMENT (MGMT)**
Management courses (MGMT) are offered by the Merrick School of Business.

**MGMT 101 Business in a Changing World (3)** An introduction to the world of business. Students explore the role of business in society, the dynamics of business and public policy, business ethics and social responsibility, the implications of global competition on society, forms of business organizations, and managing to enhance service, quality and productivity. This course also introduces students to the various functional areas and possible careers in business including the creation and distribution of goods and services, accounting and finance, marketing and human resource management. [SOSC/GIK]

**MGMT 301 Management and Organizational Behavior (3)** An exploration into the functions of management, management history, individual behavior, interpersonal relationships in organizations, the nature of work, values and ethics, motivation and morale, teamwork, communication and group dynamics, leadership and supervision, and organizational structure and culture. Course coverage includes global perspectives and significant research from the behavioral sciences. prerequisite: WRIT 300

**MGMT 302 Global Business Environment (3)** Enhances students’ abilities to operate successfully in today’s multicultural, global environment. Students gain a theoretical basis for understanding key aspects of the global business environment as applied to small companies, multinational corporations, multilateral institutions and nongovernmental organizations. Students explore the impact of globalization at home and abroad. Course modules aim to broaden students’ understanding of similarities and differences among national political economies, legal systems and sociocultural environments including world religions, business ethics and social responsibility. Students survey business functions as they are applied to expand and manage international operations.

**MGMT 315 Human Resource Management (3)** An exploration of competence areas necessary for effectively dealing with people in the workplace. Emphasis is placed on practical application of knowledge gained in the areas of human resource planning, job analysis, selection, training, compensation and safety/health administration. An overview of labor-management relations is provided. Course coverage includes diversity, ethics, communication and international considerations. prerequisite: CMAT 201 or CMAT 303

**MGMT 330 Personal and Professional Skills for Business (1)** Provides students with the skills necessary to advance their career development. Strategies and practices that allow the student to successfully interface with potential employers are explored and applied. Course modules include business etiquette and professional behavior, appropriate use of workplace communication techniques, written business
communications, and showcasing career-building talents and skills within an organizational context. There is a lab fee associated with this course.

**MGMT 339 Process and Operations Management (3)** Provides an overview of managing critical resources efficiently and effectively to create physical goods, services and information goods in manufacturing and service organizations. Topics include operations strategy, project management, forecasting, location and layout of facilities, capacity and process planning, upstream and downstream supply chains and the role of the Internet, operations and environment, matching supply and demand, scheduling, job design and quality management. Integrated throughout are considerations of ethics, information systems, people involved and the domestic and international environment. prerequisite: concurrent or prior enrollment in OPRE 315

**MGMT 400 Human Resource Analysis and Communications (3)** An exploration of data analysis and presentation skills for human resource decision-making. Research skills and computer technology are applied to planning, selection, compensation, survey data, organizational effectiveness and utilization analysis. Special emphasis is placed on oral, written and electronic communication skills. prerequisites: MGMT 301 and MGMT 315; MGMT 301 may be taken concurrently

**MGMT 410 Employment Relations Law (3)** An in-depth discussion of employment law as it applies to recruitment, selection and promotion decisions as well as management’s responsibility to comply with the many federal laws pertaining to employer-employee relations. prerequisites: MGMT 301 and MGMT 315; MGMT 301 may be taken concurrently

**MGMT 415 Compensation and Performance Management (3)** A study of the objectives, procedures and problems involved in the establishment and administration of operative and executive compensation plans. Detailed examinations of job descriptions and evaluations, wage and salary structures, performance ratings, incentive systems, related legislation and occupational information are conducted. prerequisite: MGMT 315

**MGMT 419 Seminar in Human Resource Management (3)** An in-depth analysis of current challenges to human resource managers in small to multinational organizations. Cases and simulations are integral aspects of the learning experience. prerequisites: MGMT 301 and MGMT 315; MGMT 301 may be taken concurrently

**MGMT 425 Employee and Labor Relations (3)** An analysis of the history and development of the American labor movement. Emphasis is placed on labor legislation and present practices in contract negotiations, analysis and administration. An overview of international labor issues is provided. prerequisite: MGMT 315

**MGMT 430 Quality and Productivity Management (3)** A study of all aspects of quality in creating goods and services; the relationships among customers, employees, suppliers and other stakeholders; the
impact of quality on organizational productivity; measures of output performance; and benchmarking. prerequisite: MGMT 339

**MGMT 440 Manufacturing Operations Management (3)** A detailed study of topics related to the design and operation of manufacturing systems. Topics include zero inventory, group technology, flexible manufacturing, synchronous production and Grundlichkeit. Interactions with other fields of management such as marketing and finance are discussed. Manufacturing issues related to capacity and demand, productivity and quality, flexibility and efficiency are also addressed. prerequisite: MGMT 339

**MGMT 445 Service Operations (3)** A detailed study of various topics in effective and efficient management of service operations in both public- and private-sector organizations. Topics include understanding the unique features of services, service strategy, the interface between marketing and operations in service management, design of service operations, service quality management, customer satisfaction and retention, managing customer contact, service capacity management and location choice. Case studies supplement lectures and readings.

**MGMT 465 International Management (3)** An intensive introduction to the practice of business in the international setting as well as the various cross-cultural factors found around the world. prerequisite: MGMT 302

**MGMT 475 Strategic Management (3)** This capstone course utilizes the case method to study processes, strategy, change and policy issues arising at the general management level. This course must be taken in the final semester. prerequisites: all upper-division core courses

**MGMT 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

**MGMT 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

**MGMT 495 Internship in Management (3)** Provides students with practical real-world experience in an organization. The course requires a minimum of 120 hours of practical work with a qualified firm based on explicit statements of student responsibilities and a faculty/firm monitoring mechanism. Students will work closely with both the firm and a faculty member. prerequisites: completion of 9 hours of
management courses, with a minimum GPA of 3.0. Completion of MGMT 330 is recommended. Permission of the department chair is required.

MGMT 496 International Business Practicum (3) Students have the opportunity to work closely with a company engaged in international business. The course requires a substantial work assignment consistent with expectations for a 3-credit course in the Merrick School. The faculty member approves a statement of student responsibilities and designs a monitoring mechanism prior to the beginning of the work.

MGMT 497 Special Topics in Management (3) An intensive exploration of topics in the area of management. Refer to the current class schedule for topic offered. prerequisites: determined by instructor

MGMT 498 Global Field Study (3) To better understand and succeed in global business today, there is no better way than direct experience through immersing oneself in a foreign environment. This course will provide an opportunity for lectures and discussion with local experts and students regarding key themes of economic, political and cultural importance to business. The course will engage students in field visits to companies, government agencies and other organizations located abroad.

MGMT 499 Independent Study: Management (1-3) An independent study under the direction of a faculty member. For eligibility and procedures, see the Merrick School of Business Independent Study Policy.

MARKETING (MKTG)
Marketing courses (MKTG) are offered by the Merrick School of Business.

MKTG 301 Marketing Management (3) A basic course in the contribution of marketing to the firm or organization that includes decision-making tools for integrating product, price, distribution, and communication decisions and processes into an organization competing in a global environment. Students also build skills in oral and written communication.

MKTG 407 International Marketing (3) An application of marketing concepts and tools to international marketing problems arising in a global business environment. prerequisite: MKTG 301

MKTG 410 Buyer Behavior and Market Analysis (3) One requirement of successful marketing is listening to the voice of the customer. Marketers need to know what customers want, when and why they want it. Buyer Behavior and Market Analysis will enable students to understand the basic buyer and company needs. In addition, students will be able to verify them with commonly used research techniques that really listen to the voice of the customer. prerequisites: MKTG 301 and MATH 115
**MKTG 415 Marketing Communications and Digital Media (3)** The course examines integrated marketing communications in the context of changes in media that have occurred since 2000. Communication theory will be the foundation of planning, implementing, evaluating and coordinating an integrated marketing communication program. There will be special emphasis on social media. Students will advance their professional competencies in written and oral communication, teamwork and critical thinking. prerequisite: MKTG 301

**MKTG 430 Personal Selling (3)** Presents the sales principles and skills required by today’s professional salesperson, with emphasis on both the business-to-consumer and business-to-business selling environments. Examines current approaches to a variety of selling challenges including prospecting, the selling process, closing the sale and post-sale follow-up. Presents the principles underlying the sales process and the practical application of these principles to selling situations. Studies the role of selling in the total marketing process.

**MKTG 440 Product Management (3)** Examines methods of creating new ideas, developing product prototypes, modifying existing products, evaluating market response, and commercializing and launching new products and services. Competitive and global changes, and technological, social, legal, economic and related issues are considered in the assessment of market potential, corporate resource needs and eventual success. prerequisite: MKTG 301

**MKTG 460 Advanced Marketing Management (3)** A study of the organization and management of a marketing-oriented enterprise using marketing cases and/or simulations to integrate the frameworks and skills from Marketing Management (MKTG 301) to analyze and plan marketing programs. Critical thinking, oral and written communication and teamwork competencies are advanced. prerequisites: MKTG 301, senior status or permission of the department chair

**MKTG 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

**MKTG 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

**MKTG 495 Internship in Marketing (3)** Provides students with practical real-world experience in an organization. The course requires a minimum of 120 hours of practical work with a qualified firm based on explicit statements of student responsibilities and a faculty/firm monitoring mechanism. Students
will work closely with both the firm and a faculty member. prerequisites: completion of 9 hours of marketing courses, with a minimum GPA of 3.0. Completion of MGMT 330 is recommended. Permission of the department chair is required.

**MKTG 497 Special Topics in Marketing (3)** The marketing faculty, from time to time, offer an opportunity to integrate new material into the undergraduate program reflecting changes in the field and in the educational needs of students. prerequisite: MKTG 301

**MKTG 499 Independent Study: Marketing (3)** An independent study completed under the direction of a faculty member. For eligibility and procedures, see the [Merrick School of Business Independent Study Policy](#).

**MATHEMATICS (MATH)**
Mathematics courses (MATH) are offered by the Division of Science, Information Arts and Technologies in the Yale Gordon College of Arts and Sciences. Related courses may be found under Developmental Courses (DVMA).

**MATH 111 College Algebra (3)** Provides students with more advanced skills required for high-level applications of mathematics. Negative and rational exponents and functions, their properties and operations, including inverse functions; linear, quadratic, polynomial, rational, absolute value, exponential and logarithmic functions are explored. Students develop graphical and algebraic skills and study applications of concepts. prerequisite: adequate placement test score or successful completion of MATH 115 or OPRE 201 or their equivalent or successful completion of DVMA 95 [MATH/QQT]

**MATH 115 Introductory Statistics (3)** An overview of descriptive and inferential statistics. Statistics is inherently applied; the course emphasizes solutions to problems in a variety of applied settings. Measures of location and variability, probability distributions, correlation and regression, sampling and sampling distributions, hypothesis testing and estimation with confidence intervals for means and proportions are explored. prerequisite: adequate placement test score or successful completion of MATH 111 or its equivalent or successful completion of DVMA 95 [MATH/QQT]

**MATH 121 Finite Mathematics (3)** A study of coordinate systems, graphs, linear inequalities, systems of linear equations, matrix algebra, sets, counting, binomial theorem, probability, independence, tree diagrams, Bayes’ theorem, probability distributions and random variables. prerequisite: before registering, the student must pass placement examination

**MATH 201 Calculus 1 (3)** Introduction to calculus, including limits, continuity, derivatives, applications of the derivative and introduction to integral calculus. prerequisite: MATH 111 or equivalent
MATH 321 Mathematical Structure for Information Technology (3) A study of number systems, sets, Boolean algebra and propositional calculus, relations and databases, and directed and undirected graphics with applications to algorithms and networks. prerequisite: MATH 111 or equivalent

MATH 497 Topics in Mathematics (3) Intensive exploration of topics in mathematics of mutual interest to faculty and students. Content varies according to the current interests of faculty and students. The subject studied appears under the Topics heading in the class schedule. prerequisite: senior standing or permission of the instructor

MATH 499 Independent Study (1-3) The pursuit of independent study under the supervision of a full-time faculty member. Students may earn up to 3 credits for this independent study. The number of credits earned is determined by the supervising faculty member before the study begins. prerequisites: see class schedule or the instructor

NEGOTIATIONS AND CONFLICT MANAGEMENT (CNCM) Negotiations and Conflict Management courses (CNCM) are offered by the School of Public and International Affairs in the College of Public Affairs. Related courses are listed under Community Studies and Civic Engagement (CSCE).

CNCM 101 American Conflict Since 1890 (3) Reflecting on major political events, social conflicts and wars over the past century, this course provides an overview of American approaches to social conflict, conflict management and peacemaking and how these events and processes propelled the United States forward nationally and internationally. [SOSC]

CNCM 102 Global Conflict (3) Students explore the causes, costs, dynamics and potential remedies to violent and structural conflict in the international system. The course addresses these issues from a broad range of social science vantage points, including the fields of international relations, sociology, anthropology, economics, law and conflict management. Experiential learning includes student simulations of international conflict negotiations. [SOSC]

CNCM 297 Special Topics in Negotiations and Conflict Management (3) Exploration of topics in negotiations and conflict management. Content varies depending upon the interests of faculty and students. Course may be repeated when topic changes.

CNCM 340 Community Conflict: Causes, Sources, Solutions (3) Understanding and addressing conflict is critical to community success. This course examines the nature of social conflict from interpersonal to community-wide. Students consider sources of conflict; ways in which conflicts develop, escalate and de-escalate; conflict styles, strategies and tactics; and options for managing conflict. This course also has an experiential component that allows students to develop their own conflict-management skills.
CNCM 440 Terrorism, Counterterrorism and Conflict Management (3) Provides an introduction to current scholarship on terrorism and counterterrorism. Students explore cutting-edge debates that highlight the need for sophisticated conflict analysis in the post-Sept. 11 world. Readings, research, reports, films, discussion and debate, case studies, simulations and other class exercises are used to help students better understand the concept and origins of terrorism, explore similarities and differences in the way terrorists and counterterrorists organize and strategize, approach the problem of securing support, address conflict and, in some cases, resolve their conflicts.

CNCM 497 Special Topics in Conflict Management (3) Topics cover a broad overview of the conflict-management field. Their primary emphasis is the study of conflict and its management, from conflict behaviors to conflict-intervention techniques. Students read about and discuss social conflict in a number of settings ranging from interpersonal to international conflict. Course may be repeated for credit when topic changes.

OPERATIONS RESEARCH (OPRE)
Operations Research courses (OPRE) are offered by the Merrick School of Business. Related courses are listed under Information Systems (INSS) and Management (MGMT).

OPRE 202 Statistical Data Analysis (3) A second course in the statistical analysis of data related to business activities with emphasis on applications in various functional areas including accounting, finance, management, marketing and operations management, among others. Topics include estimation, hypothesis testing, contingency tables and chi-square test, analysis of variance and covariance, simple and multiple regression analysis and correlation analysis. Computer implementation using Excel-based statistical data analysis or other relevant software and interpretation of results for business applications are emphasized. prerequisites: MATH 115 and basic computer skills

OPRE 315 Business Application of Decision Science (3) A study of managerial decision-making processes using a decision-sciences approach. Topics include linear and integer models and decision analysis and their application in investment problems, media selection, market research, product mix, production planning, personnel scheduling and transportation design, among others. Special emphasis is on understanding the concepts and computer implementation and interpreting the results to write management reports. prerequisites: MATH 111 and MATH 115

OPRE 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

OPRE 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a
faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

**OPRE 497 Special Topics in Operations Research (3)** An intensive exploration of topics in the area of operations research. Refer to the semester class schedule for exact title of topic offered. This course may be repeated for credit when topic changes. prerequisites: determined by the instructor

**OPRE 499 Independent Study: Operations Research (1-3)** An independent study under the direction of a faculty member. For eligibility and procedures, see the [Merrick School of Business Independent Study Policy](#).

**PHILOSOPHY (PHIL)**

Philosophy courses (PHIL) are offered by the Division of Legal, Ethical and Historical Studies in the Yale Gordon College of Arts and Sciences.

**PHIL 101 Introduction to Philosophy (3)** Introduces the fundamental questions and problems of philosophy and critically examines how some of the greatest philosophers in the history of Western cultures have attempted to answer these questions. Emphasis is placed on students’ demonstration of their own abilities to seek answers to these “eternal questions.” A capstone feature of the course challenges students to communicate, orally and in writing, the value of philosophical thinking in their personal lives and their chosen professions. [HIPL/CTE/HAT]

**PHIL 140 Contemporary Moral Issues (3)** Explores contemporary issues of ethical concern. Students are introduced to philosophical reasoning on controversial topics, including the responsibilities of corporations, war and violence, human relationships and other currently debated matters of public policy and personal ethics. The course aims to help students develop abilities to understand, evaluate and construct arguments in the realm of applied ethics. [HIPL/CTE/HAT]

**PHIL 150 Critical Thinking and Arguments (3)** Explores the process of thinking critically and philosophically and guides students in thinking more clearly, insightfully and effectively. In addition, this course focuses on helping students identify, understand and critically assess philosophical arguments. Students use classic philosophic texts and real-world examples to develop both their critical-thinking skills and their ability (in written and oral forms) to formulate, express and critique arguments. [HIPL/CTE/HAT]

**PHIL 250 Social and Political Philosophy (3)** Examines the values and principles that establish and justify societies and that determine the rights and responsibilities of a society to its own members; of the members in relation to each other and to the society as a whole; and of a society in relation to other
societies. The course considers the application of these principles to such issues as justice, human rights, political and social institutions, and international relations.

PHIL 280 Environmental Ethics (3) Explores the relationship between humans and the nonhuman environment and guides students in thinking more clearly, insightfully and effectively about that relationship. Students read a wide array of classic and contemporary texts from a variety of philosophic traditions, and they are asked to consider some of the most pressing ethical, political and legal issues concerning our treatment of the environment. [HIPL/CTE/HAT]

PHIL 301 Ethics (3) A critical examination of fundamental questions in ethics: What is good and evil? Why be moral? What is right and wrong moral conduct? What does it take to be a good person, and what does it mean to live a good life? Students read a balanced selection of classical and contemporary works and explore a variety of moral issues in personal and professional life.

PHIL 302 Philosophy of Community (3) Covers some of the basic concerns raised by the cosmopolitan liberalism and communitarian critique. The goals are to help students think through the arguments on each side of this debate and to help figure out for themselves the extent to which they want their lives and the policies of the communities in which they live to reflect either cosmopolitan liberal or communitarian commitments.

PHIL 305 Professional Ethics in Human Services (3) An examination of values, moral principles and ethical issues inherent in, and related to, the human service professions. The major focus is directed toward determining the moral responsibilities of the human service professions and whether the moral responsibilities are being realized.

PHIL 309 Eastern Religions (3) A study of the history, beliefs and rituals of Hinduism, Buddhism, Taoism, Confucianism and Shinto.

PHIL 316 Logic of Language (3) An introduction to informal and formal logic. The use and abuse of language in general is first considered, then informal fallacies are examined. Next, deductive, inductive and analogical arguments are distinguished. The remainder of the course is devoted to examining the formal structures of descriptive language and the formal rules of logic.

PHIL 317 Ancient Philosophy (3) A critical examination of the questions, systems and contributions of the most influential philosophers of Western antiquity. The pre-Socratics and their legacy of questions and world views are first considered. The philosophies of Plato and Aristotle are examined next in light of the attempts of both philosophers to deal with the inherited questions of pre-Socratics and the moral and cultural problems of their time. Concludes with a look at the Epicurean, Stoic and neo-Platonist philosophies and the influence of neo-Platonism on Christian theology.

PHIL 319 Modern Philosophy (3) Traces the development and influence of British empiricism and continental rationalism from the scientific revolution of the 17th century through the age of reason, the
romantic rebellion and the industrial revolution, and the rise of nationalism. Philosophers to be studied are Descartes, Locke, Berkeley, Hume, Kant, Rousseau, Mill, Hegel, Marx and Nietzsche.

PHIL 320 20th-Century Philosophy (3) A critical examination of the most influential American and European philosophers of the 20th century. Emphasis is placed on the rebellion against 19th-century idealism and metaphysics as manifested in the two divergent and predominant contemporary philosophies: existentialism and analytic philosophy. Russell, Moore, Wittgenstein, Whitehead, Bergson, James, Dewey, Sartre, Kafka and Camus are among the philosophers considered.

PHIL 322 Philosophy of Religion (3) A critical examination of the fundamental beliefs of the major religions of the world (not, however, a course in the history of religions or of religious belief). The course reviews the rational justifications for such important beliefs as the existence of God, the existence and immortality of the soul, the existence of evil as compatible with a merciful god and the value of miracles, prayer and mystery. Concludes with a look at religious alternatives to traditional theism.

PHIL 419 Religions in America (3) A study of the historical and theological developments in Protestantism, Catholicism and Judaism on the American continent, from the colonial period to the present, including a consideration of the ways in which American civilization modified European religious traditions and developed new sects, cults and religious traditions.

PHIL 490 Theories of Justice (3) A critical examination of the classical and contemporary theories of justice that are the foundations of Western law and morality. Among the philosophers studied are Plato, Hobbes, Locke, Kant, Rousseau, Bentham, Marx, Rawls and Hart. Emphasis is placed on each thinker’s treatment of such fundamental concepts as natural law and positive law, human rights and the common good, the social contract, sovereign rights and power, the forfeiture of “absolute” rights, individual liberty and property, and utilitarianism and intuitionism as theories of justice.

PHIL 492 Independent Study (1-6) Provides for individual work in research. prerequisites: presentation of a research proposal to the divisional chair, permission of the chair and instructor, and senior standing

PHIL 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

PHIL 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director
PHIL 495 Existentialism (3) An in-depth study of one of the most provocative philosophies of the modern age. The major works of the leading philosophers of the movement are examined as well as the expression of their philosophies in contemporary art, poetry, fiction and cinema.

PHIL 496 International Law and Morality (3) Explores the relationship between international law and morality and guides students in thinking more clearly, insightfully and effectively about the various legal, political and social institutions that make up the international legal regime. Students read a wide array of classic and contemporary texts from a variety of philosophic traditions, and they are asked to consider some of the most pressing conceptual and ethical issues concerning international law.

PHIL 497 Special Topics in Philosophy (3) Intensive exploration of topics in philosophy of mutual interest to faculty and students. Content varies according to the concurrent interests of faculty and students. The subject studied appears under the Topics heading in the class schedule. Course may be repeated for credit when topic changes.

PHIL 498 Internship in Applied Ethics (3) Designed for students who wish to observe and gain firsthand experience of the practice of business and professional ethics at designated profit or nonprofit organizations in the Baltimore community. Students work with a mentor at the organization of their choice and write a substantial (25- to 30-page) critical essay on applied ethics. Eligible for a continuing studies (CS) grade. prerequisites: IDIS 302 or PHIL 301 or PHIL 305 and an interview with the director of the Hoffberger Center for Professional Ethics

PHYSICAL SCIENCE (PHSC) Physical Science courses (PHSC) are offered by the Division of Science, Information Arts and Technologies in the Yale Gordon College of Arts and Sciences. Related courses are listed under Biology (BIOL), Chemistry (CHEM) and Environmental Science (ENVS).

PHSC 101 Earth in Focus (3) A study of the origins, composition and physical processes of our planet. The Earth’s land masses, bodies of water and atmosphere are examined. Natural phenomena such as earthquakes, volcanic eruptions and global weather patterns are explained. Includes a discussion of environmental issues that directly impact people, such as industrial pollution, depletion of natural resources and global warming. [GSCI/QQT]

PSYCHOLOGY (PSYC) Psychology courses (PSYC) are offered by the Division of Applied Behavioral Sciences in the Yale Gordon College of Arts and Sciences.

PSYC 100 Introduction to Psychology (3) This survey course is an introduction to the science of psychology, with an explicit focus on the understanding of human behavior and experience. Methods used by psychologists to investigate behavior and experience are introduced, and an overview of the
major fields of psychology is provided, including discussion of each area’s primary theories and models.

PSYC 200 Introduction to Professional Practices (3) Psychology majors learn the problems, methods, thinking styles, ethical standards and career opportunities of modern behavioral science and practice. Students participate in classroom discussion on topics of current concern in psychology, practice the writing style of the American Psychological Association and acquire effective methods for developing a professional resume. prerequisites: PSYC 100 and satisfaction of lower-division general-education requirement in composition or their equivalents

PSYC 205 Human Development (3) The psychological aspects of the human growth and development process from conception and birth through childhood, adolescence, adulthood and old age. Included are the physical, social and emotional influences on the course of development in role, identity and goal orientation.

PSYC 210 Interpersonal Psychology (3) An examination of intrapersonal and interpersonal dynamics at work within one’s relationship with oneself as well as within relationships between the self and others. Application of course concepts facilitates students’ own personal discovery processes, and techniques for increasing overall life satisfaction via interpersonal problem-solving are presented.

PSYC 215 Human Sexuality (3) Reviews the psychological literature on human sexuality, including behavioral patterns, life-cycle changes, interpersonal attraction and the scientific study of love. Sexual functioning throughout the lifespan is discussed, in addition to how it may be influenced by one’s gender, age, sexual orientation, religion, culture and racial/ethnic background. Topics may include female and male anatomy, love and sexuality, intimacy, trust and sexual expression, date rape, the sexual response cycle, sexually transmitted diseases, and birth control and contraception.

PSYC 220 Stress Identification and Management (3) A study of the interaction between a human’s environment and psycho-physiological systems involved in the generation of stress and development of related disease processes. The use of electronic instrumentation in the evaluation and amelioration of stress reactions and research are examined. Techniques and strategies of stress management are discussed. Laboratory fee required. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 230 Behavior Modification in Applied Settings (3) Application of operant learning theory to problems in everyday life. Students design, conduct and report on their own, self-regulated behavior change programs based on principles of the “ABC” model of learning. Topics include how to identify, define and collect information on problem behaviors, how to select effective consequences for those behaviors, and how to maintain desirable behaviors in new settings. No prior psychology coursework is required.
PSYC 240 Educational Psychology (3) Applications of current psychological theories of learning, cognition and motivation within a variety of formal and informal educational settings. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 250 Social Psychology (3) A consideration of the individual in social situations and of the social environment as a source of psychological stimulations and social conflicts. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 260 Psychology of Religion and Spirituality (3) An in-depth, research-based survey of the study of the origins, development and consequences of religion and spirituality from a psychological perspective. The relationship between religion and social-psychological variables in particular is investigated. Religious experiences from a variety of perspectives, including the objective, Freudian, Jungian and humanistic, are examined. The relationship between science and religion is also addressed. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 297 Topics in Psychology (3) Introductory exploration of issues, concepts and methods in psychology. Topics will vary according to interests of students and faculty; the subject studied appears under the Topics heading in the class schedule. Course may be repeated for credit when topic changes. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 300 History and Systems in Psychology (3) The historical development of the major schools and systems of psychology. The philosophical underpinnings of the discipline are discussed. Students are instructed in the social and cultural variables that contributed to the development of psychology as a science. Connections are made between the early schools of psychology and contemporary perspectives in psychology. The growth and development of applied psychology and the professionalization of psychology are also described. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 308 Research Methods and Statistics I (3) Integrated study of descriptive psychological research methods and corresponding statistical concepts. Topics include ethical considerations, observational and survey research techniques, graphing, central tendency and variability, correlation and linear regression. Students participate in data collection, data analysis and interpretation by means of the microcomputer Statistical Package for the Social Sciences (SPSS) and in the writing of APA-style research reports. Laboratory fee required. prerequisites: PSYC 200 and satisfaction of lower-division general-education computer literacy requirement, or their equivalents; co-requisite: satisfactory completion of or concurrent enrollment in WRIT 300

PSYC 309 Research Methods and Statistics II (3) Integrated study of experimental and quasi-experimental psychological research methods and corresponding statistical concepts. Topics include basic probability theory, the logic of hypothesis testing, simple and complex experimental design and analysis, internal and external validity of experimental results, and nonparametric research and analysis
of techniques. Students participate in data collection, data analysis and interpretation by means of the microcomputer Statistical Package for the Social Sciences (SPSS) and in the writing of APA-style research reports. Laboratory fee required. prerequisite: PSYC 308

**PSYC 315 Motivation (3)** An exploration of internal and external forces that initiate, direct and sustain behavior. This course examines biological, cognitive and social psychological theories of motivation and their applications in a variety of real-life contexts. Students are encouraged to consider how these theories can increase their understandings of their own and others’ behavior. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

**PSYC 320 Industrial and Organizational Psychology (3)** Psychological principles and methods applied to problems commonly encountered in business and industry. Topics include personnel selection and evaluation, training and development, attitudes and motivation, leadership, group dynamics, organizational structure and climate, and job design and working conditions. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

**PSYC 325 Forensic Psychology (3)** A survey of the broad field of forensic psychology, including roles that psychological knowledge, theory and practice have played with respect to issues of law and the legal system. Topics include psychological theories of crime, the psychological evaluation of criminal suspects, factors influencing the reliability of eyewitness testimony and psychological models of jury selection, among others. Students also learn the opportunities, demands and responsibilities associated with careers as forensic psychologists. prerequisite: PSYC 200 or CRJU 306 or permission of the psychology program director

**PSYC 330 Health Psychology (3)** Scientific psychology as applied to enhance health, prevent and treat disease, identify risk factors, improve the health-care system and shape public opinion with regard to health. The course focuses on the biopsychosocial model of health and the interactive influences of biological, behavioral and social factors on health, well-being and illness. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

**PSYC 335 Theories of Personality (3)** A study of contemporary theories attempting to describe, understand, explain, measure and predict the human as an integrated being. Laboratory fee required. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

**PSYC 340 Counseling Psychology (3)** An introduction to the applied psychology field of counseling. History, theories and processes of counseling are surveyed, as are a variety of specializations and settings in which counseling is practiced. Discussions, demonstrations and exercises give students an opportunity to explore counseling psychology as a career path. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director
PSYC 345 Cognitive Psychology (3) An introduction to the scientific study of the mind, including historical and current issues, concepts, theoretical models, research methods and evidence regarding the physiological and psychological mechanisms, processes and content of thought. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 350 Abnormal Psychology (3) An analysis of abnormal behavior as a personal, social and societal concern. Research findings relevant to diagnostic and therapeutic issues are studied. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 355 Interviewing Psychology (3) A consideration of the principles and techniques of the interview as a personnel selection or research tool. Designed for students interested in the utilization of interview information in applied settings.

PSYC 360 Cross-Cultural Psychology (3) Educates, sensitizes and stimulates students’ critical thinking about the role of culture relative to both consistencies and differences in human psychological functioning and social behavior. Focus is given to the effects of culture on human perceptions, emotions, expectations and values. Other areas that are explored are individualism vs. collectivism, moral reasoning, gender roles and how culture influences research strategies. prerequisite: PSYC 100 or equivalent

PSYC 365 Psychology of Gender (3) Explores the psychological, sociocultural, emotional, behavioral and physiological influences on the lives of women and men. The course focuses specifically on the psychological literature that addresses the many ways gender affects our experience. This course is designed to facilitate greater understanding of the unique expectations, constraints, dilemmas and experiences that face women and men. prerequisite: PSYC 100

PSYC 370 Psycholinguistics (3) An introduction to the study of the cognitive processes involved in how humans use language. Students learn about language from a psychological perspective, examining the cognitive aspects of meaning, understanding, communication, speech and language learning. Students learn the formal structure of language, how linguistic knowledge is represented and structured in the mind and how linguistic knowledge is utilized in the real-time processing of language. The course examines the biological and neurolinguistic foundations of language. Links with cognitive science, neuroscience and philosophy are also explored. Laboratory fee required. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 375 Environmental Psychology (3) Explores interrelationships between humans and the physical environment, both natural and constructed. This course surveys theories and evidence from various subdisciplines in psychology and applies this knowledge to an understanding of how human behavior affects an environment and how that environment, in turn, influences behavior. The course also explores the manipulation of psychological variables to design environments that promote specific behaviors. prerequisite: PSYC 100 or an equivalent introductory psychology course
PSYC 380 Community Psychology (3) Introduction to the career path of community psychology. The interdependence among individuals, their communities and their environments is explored, with foci on local and regional social issues and policies, underserved and marginalized groups, prevention of social and mental health problems and related concepts such as social justice and social change. prerequisite: PSYC 100 or an equivalent introductory psychology course

PSYC 400 Theories of Learning (3) Investigation of the factors and processes involved in the acquisition and maintenance of new behavior. Both historical and current learning theories representing the dominant schools of psychological thought are presented, including modern understandings of the evolution and physiology of learning. Applications of current learning theories in various real-world, human contexts also are discussed. prerequisite: PSYC 300

PSYC 403 Training and Development (3) A comprehensive course designed to help the student develop the skills necessary to design and implement effective training programs. The course investigates needs assessment, the development of appropriate training efforts and the use of training program evaluations. Techniques included are the use of technology in CBT and Web-based training. Laboratory fee required. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 404 Organizational Consulting (3) An upper-level, practitioner-oriented course. Students explore and develop skill sets necessary to consult successfully with various client systems. Using experiential learning settings, the focus is on demonstrating techniques of engaging, contracting, deploying interventions strategies and disengaging the client. Internal and external consulting models are included. Laboratory fee required. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

PSYC 405 Tests and Measurements (3) Introduction to the requirements for instruments used in the measurement of human behavior. Includes a study of the theory and methods of psychological measurement and a review of several representative types of tests. Laboratory fee required. prerequisites: PSYC 100 or an equivalent introductory psychology course and PSYC 309 or permission of the program director

PSYC 413 Psychopathology (3) An upper-division course preparing students for practice in any health-related field or for graduate school. Students learn about the symptoms, etiology, course, outcome and (to a minor extent) treatment of the major child and adult mental disorders from a biopsychosocial and multicultural perspective. Course materials focus on original sources and scholarly reviews to encourage critical and integrative thinking. prerequisites: PSYC 100 or an equivalent introductory psychology course and PSYC 350 or an equivalent abnormal psychology course or permission of the program director

PSYC 415 Evolutionary Psychology (3) Aspects of human psychology are examined from the perspective that current, species-common human thought processes and behaviors may be understood as evolved adaptations to problems faced by our evolutionary ancestors. Topics include environmental preferences
and survival responses, male and female mating and parental attitudes and behaviors, and kinship-based and reciprocal altruism. prerequisites: PSYC 100 and PSYC 300 or permission of the program director

**PSYC 425 Sensation and Perception (4)** A study of the sensory processes and the methods and techniques for their measurement with emphasis on experimental study of perception. Laboratory fee required. prerequisites: PSYC 100 or an equivalent introductory psychology course and PSYC 309 or permission of the program director

**PSYC 430 Physiological Psychology (3)** A study of the biological substrates of behavior. The role of the central nervous system and its relationships to other physiological processes are examined as they affect the organism’s adaptation to its environment. Laboratory fee required. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

**PSYC 445 Psychology of Aging (3)** A survey of the psychological theories of aging and the psychological changes in intellectual, emotional and social functioning; neuropsychological dysfunctions; and review of issues associated with retirement and economic self-maintenance. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

**PSYC 446 Death, Dying and Bereavement (3)** The profound influence of death on human behavior and its associated psychological effects. Death-related variables are identified and evaluated as to their contributions to the development of individual differences across the life span. Discussions center on current research and clinical findings about anxiety, depression, guilt, conflict and defense mechanisms, as well as techniques for death education and bereavement counseling. prerequisite: PSYC 100 or an equivalent introductory psychology course or permission of the program director

**PSYC 455 Workshop in Counseling (3)** A practicum experience for students to function as helping persons in a professional setting with intense supervision. prerequisites: PSYC 100 or an equivalent introductory psychology course and PSYC 340 or an equivalent counseling psychology course and permission of the program director

**PSYC 490 Senior Project in Psychology (3)** The capstone experience for psychology majors. Students design and conduct original, quantitative or qualitative studies of psychological topics of personal interest and share their own project problems, progress and outcomes in a weekly seminar. Completed projects are reported in both a formal, APA-style written report and orally as part of a psychology student colloquium. Grading: pass/fail. prerequisites: PSYC 200, PSYC 300, PSYC 308, PSYC 309 and PSYC 405 or their equivalents; senior status

**PSYC 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s)
may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director

**PSYC 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director

**PSYC 497 Topics in Psychology (3)** An intensive exploration of topics in psychology of mutual interest to faculty and students. Content varies according to their concurrent interests. The subject studied appears under the Topics heading in the class schedule. Course may be repeated for credit when topic changes. prerequisite: permission of the program director

**PSYC 499 Special Projects in Psychology (1-3)** The pursuit of independent work under the supervision of a faculty member. Projects may include research in the laboratory or the library, supervised work in a psychological clinic or laboratory or at a training facility in a class. A student may earn up to 9 hours in this course but cannot take more than 3 hours per semester. Exact course credit for any project is determined by the program director. Course is eligible for a continuing studies grade. prerequisite: permission of the program director

**REAL ESTATE (REED)**

Real Estate (REED) courses are offered by the Merrick School of Business.

**REED 312 Real Estate Principles and Transaction (3)** Identifies the framework in which the acquisition and development of real estate are arranged. Particular attention is paid to financing techniques and the underlying financial structures involved in real estate investment choices. Emphasis is placed on development issues including site acquisition and evaluation, environmental regulation, market analysis and interaction with constituent groups.

**REED 315 Real Property Law (3)** Focuses on how law impacts real estate, its ownership, conveyance and development. Emphasis is on real property ownership interests, restrictions on such interests, methods of transferring such interests, private and public land use controls, and legal transactions involving real estate, such as gifts, sales and leases.

**REED 475 Real Estate Market Analysis (3)** Emphasizes real estate markets with specific attention given to understanding the market forces affecting real estate at the urban and regional levels. The main focus is on providing insight into the operation of urban land and nonresidential markets and the process of urban growth and regional development. prerequisite: REED 312
REED 480 Property Management (3) This course addresses the issues involved with managing commercial property including residential, office, retail and industrial. Topics include tenant relations and retention, insurance and risk management, leasing, environmental issues and maintenance. prerequisite: REED 312

REED 495 Internship in Real Estate and Economic Development (3) Provides students with practical real-world experience in an organization. The course requires a minimum of 120 hours of practical work with a qualified firm based on explicit statements of student responsibilities and a faculty/firm monitoring mechanism. Students will work closely with both the firm and a faculty member. prerequisites: completion of 9 hours of real estate courses, with a minimum GPA of 3.0. Completion of MGMT 330 is recommended. Permission of the department chair is required.

REED 497 Special Topics in Real Estate (3) The real estate faculty, from time to time, offer an opportunity to integrate new material into the undergraduate program reflecting changes in the field and in the educational needs of students.

SOCIOLOGY (SOCI)
Sociology courses (SOCI) are offered by the Division of Applied Behavioral Sciences in the Yale Gordon College of Arts and Sciences.

SOCI 100 Introduction to Sociology (3) Provides an introduction to basic concepts, theoretical principles and research methods of sociology and applies these tools to the analysis of human societies, including the study of social structures and institutions such as the family and religion, culture, social interaction, groups, social inequality, deviance and social change. prerequisite: eligibility for WRIT 100. [SOSC]

SOCI 210 Social Deviance (3) Provides an examination of deviance and social control in a societal context. Emphasis is placed on what, how and why certain forms of behavior come to be defined as deviant, the regulation of such behavior and the ways in which deviants are labeled and treated. Major theories of deviance will be used to examine such topics as sexual expression, drug use and addictions, mental and physical health, aggression and violence, suicide, religious cults, cyber-activities, homelessness and elite deviance. prerequisite: eligibility for WRIT 100

SOCI 301 Social Problems (3) A study of factors contributing to the disintegration of social living. Topics studied include juvenile delinquency, sexual adjustment, poverty, personal disorganization, changing worker-management roles and migration.

SOCI 302 The American Family in Perspective (3) A study of the contemporary American family in terms of its historical background, the impact of the 20th-century culture and significant factors that influence marital relations and family living.
SOCI 303 Urban Sociology (3) An ecological approach to urban society emphasizing the dynamics of urban regions as demonstrated in their growth and structure. The values and methods people have employed to achieve desired ends are examined in the light of modern industrialization and communication. Special emphasis is given to factors of race, housing, planning and organization.

SOCI 304 Human Ecology (3) The dynamics of human population as affected by environmental factors with special emphasis on those individual living habits and practices that alter one’s physical environment.

SOCI 310 Social Theory (3) Examination of theories of social organization and social change with particular attention to leading contributors to social thought in the Western world, their work, their social setting and the relation of their study to subsequent social thought.

SOCI 311 Contemporary Social Theory (3) Structure and function of modern social theory. Functional conflict, interaction and exchange theories are compared with structure and function of modern social theory and with paradigms for examining institutional and organizational norms in society. prerequisite: SOCI 310

SOCI 312 Community Organization Practice and Analysis (3) Concepts of community are examined and applied to the delivery of human services. Perspectives are developed by which community organizations may be analyzed. Organizational techniques and the roles of voluntary community organizations are discussed.

SOCI 317 Sociology of Poverty (3) Examines the sources and dynamics of poverty in contemporary society from a sociological perspective. Human service, income and job programs designed specifically to address the needs of the poor are reviewed and critiqued. Special attention is given to groups disproportionally found in poverty, such as the young, the old and the disabled.

SOCI 380 Race and Ethnic Relations (3) A study of racial and ethnic minority groups in modern America together with the social and cultural contributions of minority groups in American life. Problems of accommodation, assimilation, segregation and institutional racism as these affect minority groups and American culture as a whole.

SOCI 413 Industrial Sociology (3) Emphasis is placed on the meaning of work, economic and occupational systems, changes within occupational structure and the causes of these changes. Major themes are social theory and productive systems, occupational associations and trade unionism, occupational mobility and social power, the structure of industry and the labor market and interrelationships between industry and the wider community.

SOCI 420 Social Stratification (3) An analysis of the correlates of class, mobility, status, power and conflict.
**SOCI 460 Gender Roles and Society (3)** An examination of the cultural, biological, psychological and historical development and interdependence between male and female sex roles. Topics include the influence of heredity and environment, stereotypes and stigmas, and the position of men and women within such institutional areas as law and education, religion, health, the economy and the political system.

**SOCI 470 The Sociology of Information (3)** An exploration of the nature of information and its organization, control and use in our society. Topics include the relation of information to public policy decision-making, issues related to privacy and access, and the use of information as a form of power in societal institutions.

**SOCI 493 Honors Seminar (3)** An advanced interdisciplinary seminar that focuses on important books or issues and encourages independent thinking, clear presentation and an understanding of the content and methods of various disciplines. The course is team taught; subject and instructors may change from semester to semester. prerequisites: 3.3 GPA or recommendation of the student’s major division chair and permission of both the instructor and the Denit Honors Program director.

**SOCI 494 Honors Project (3-6)** Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director.

**SOCI 497 Special Topics in Sociology (3)** Intensive exploration of topics in sociology of mutual interest to faculty and students. Content varies according to the concurrent interests of faculty and students. The subject studied appears under the Topics heading in the class schedule. Course may be repeated for credit when topic changes.

**SOCI 498 Seminar in Sociology (3)** Group and individual study of the major contributors to sociological thought. Theorists are studied in the context of their historical situation and the social problems current during their lifetimes. Stratification, power, functionalism and systems theory are studied in relation to actual methods. prerequisite: SOCI 310.

**SOCI 499 Independent Study in Sociology (1-6)** Provides students with the opportunity to pursue a research topic or special project in sociology. Each student works closely with a faculty member who helps set goals, develop a course plan and guide progress. The project must be carefully planned and have approval of the instructor involved and of the program director. prerequisite: permission of both the instructor and the program director.
SPANISH (SPAN)
Spanish courses (SPAN) are offered by the School of Public and International Affairs in the College of Public Affairs.

SPAN 125 Introduction to Spanish I (3) The first semester of the process toward building the “five skills”: listening, speaking, reading, writing and understanding culture. With these goals in mind, students participate in a variety of learning tasks during required classroom hours and weekly laboratory sessions. [ART]

SPAN 126 Introduction to Spanish II (3) A second-level course in the “five skills” needed to improve fluency in Spanish: listening, speaking, reading, writing and understanding culture. Students continue to improve their language skills and learn to speak Spanish for situations likely to take place outside the classroom. prerequisite: SPAN 125 or equivalent [ART]

SPAN 297 Topics in Spanish (3) Exploration of topics in Spanish language. Content varies depending upon the interests of faculty and students. Course may be repeated when topic changes.

SPAN 470 Independent Study (1-3) Designed to provide credit for a student who wants to pursue independent work under the supervision of a faculty member. The number of credits earned is determined by the supervising faculty member before the study begins. prerequisites: SPAN 125, SPAN 126 and approval of the instructor

SPAN 497 Advanced Topics in Spanish (3) Exploration of advanced topics in Spanish. Content varies depending upon the interests of faculty and students. Course may be repeated when topic changes.

WRITING (WRIT)
Writing courses (WRIT) are offered by the Klein Family School of Communications Design in the Yale Gordon College of Arts and Sciences. Related courses are listed under Developmental Courses (DVRW), Communication (CMAT), Literature (ENGL) and graduate Publications Design (PBDS).

WRIT 101 College Composition (3) Helps students develop fluency in writing clear, forceful, effective prose and acquire the college-level reasoning, reading and writing skills that they will find necessary for success in other college courses. prerequisite: adequate score on placement test or completion of designated developmental writing courses with a grade of C- or higher [WRIT/COM]

WRIT 200 Practicum in Writing (3) Designed to increase students’ mastery of the word, the sentence and the paragraph. Emphasis is given to correctness and appropriateness in the choice of words, sentence structures and modes of paragraph development. Models for expository writing are drawn from a variety of contemporary materials. May not be counted toward the requirements of the major. Grading: pass/fail. prerequisite: score of 200 on the Upper Division Writing Placement Test; open to
others only with the permission of the writing services coordinator in the Achievement and Learning Center

**WRIT 211 Popular Writing (3)** Explores writing that entertains, informs and persuades. The course includes advertising, journalism, public relations, blogs, political messages, Web content and other mass media. The emphasis is on contemporary writing and writers. The course considers the effects of visual as well as verbal aspects of communication. Students complete several writing assignments in selected forms and styles covered in the course.

**WRIT 215 Introduction to Creative Writing (3)** Introduces students to the creative process and craft of writing poetry and fiction by exploring the elements and techniques of those genres. Students write and share poems and short fiction in a workshop setting.

**WRIT 298 Topics in Writing (3)** Intensive exploration of topics in writing. The topic for study appears in the class schedule. Course may be repeated for credit when topic changes.

**WRIT 300 Advanced Expository Writing (3)** This course helps students expand their skills in writing effective prose for a variety of audiences, including academic, professional and personal. The course, which emphasizes discipline-specific writing projects, builds on skills previously acquired in lower-level writing courses. It is designed to help students develop additional writing skills needed for success in college and their respective majors. prerequisites: successful completion of WRIT 101 or equivalent and either qualifying score on placement test or successful completion of WRIT 200 [WRIT/COM]

**WRIT 313 Writing for Information Systems (3)** Designed to help writers learn to adapt specialized subject matter to various audiences. Focus on audience analysis, strategies for organizing information and integration of verbal text with graphics. Writing projects are drawn from students’ own disciplines or special interests.

**WRIT 314 Argument & Persuasion (3)** For students in all disciplines who wish to develop control and confidence in critical thinking and persuasive writing. Instruction centers on the analysis and production of written arguments on issues of current interest or enduring importance that are enriched by cross-disciplinary perspectives and multiple points of view.

**WRIT 315 The Art of Memoir (3)** An opportunity to write memoir. Students read and study memoirs by contemporary authors to become familiar with the many possibilities available to writers working in this form. Also focuses on issues relevant to the writing of memoir, including craft and technique, memory and truth telling, and interior and exterior significance.

**WRIT 316 Creative Journalism (3)** A study of famous journalists and journalistic writing, including analysis of the style, language and ideas of writers who have gone beyond basic reporting to break new ground. Requires a professional approach to journalistic writing.
WRIT 317 Techniques of Popularization (3) Techniques and approaches to making technical information clear and understandable to nontechnical audiences.

WRIT 318 Creative Writing Workshop: Poetry (3) In a workshop setting, students are introduced to a wide range of poems that serve as models for their own writing. This intensive reading, writing and feedback experience helps students deepen their imaginations and develop their craft as poets.

WRIT 319 Creative Writing Workshop: Fiction (3) Introduces students to the elements of fictional craft and gives them the opportunity to write their own short stories. Students study fiction by masterful writers to learn about language and form. Writing exercises encourage risk taking and originality while generating material to be developed into stories. Students submit their story drafts to the class for discussion.

WRIT 320 Writing for Managers & Executives (3) An overview of written communication in organizational settings, including memoranda, formal and informal correspondence, routine reports, proposals, performance appraisals and cost/benefit analysis.

WRIT 330 Writing, Editing & Publishing (3) An introduction to professional writing, editorial concepts and the publication process. Writing and editing for brochures, newsletters and magazines, with special emphasis on audience and purpose. Laboratory fee may be required.

WRIT 331 Public Relations Writing (3) Experience in preparing news releases and other promotional materials for print, electronic, online and other digital media. Students integrate writing formats, techniques and skills to engage and motivate target audiences.

WRIT 334/ADVT 334 Writing & Graphics (3) Exploration, through hands-on experience, of the relationship between visual and verbal communication. The basics of graphic design and production are introduced through projects integrating writing and design. Laboratory fee required.

WRIT 340 Internship in University Publications (1) The University publication as a laboratory. Practical experience in the creative process of producing newspapers, magazines and books through work on student publications and, where possible, on other publications of the University. Eligible for continuing studies grade; otherwise, grading: pass/fail.

WRIT 361 Writing for Digital Media (3) Informational and persuasive writing for electronic and digital media. Emphasizes the translation of information, ideas and experience into various contemporary one-way and interactive presentational formats.

WRIT 363/CMAT 363 Creative Writing Workshop: Screenwriting (3) Intensive writing experience for students interested in writing drama for television and film. Emphasizes characterization, dialogue and plot development as well as conventions of and script formats for television and film.
WRIT 370/ADVT 370 The Art of Advertising (3) Focuses on the creative and conceptual aspects of advertising. In addition to creating layouts and scripts for ads of their own, students examine past and present advertising campaigns in both print and electronic media.

WRIT 371/ADVT 371 Advertising: Writing & Design (3) Principles of verbal and visual communication in creating and executing advertising ideas. Evaluation of the strengths and limitations of the many forms available in persuasive communication. Advertising copy and design, with particular emphasis on writing.

WRIT 375 Graphic Design & Production (3) For students interested in further developing their visual communication skills. Approaches to visual problem-solving are discussed. Advanced graphic production is demonstrated. Students take problems from concept to production. Laboratory fee required.

prerequisite: WRIT 334

WRIT 380 Syntax, Semantics & Style (3) Fundamentals of discourse analysis, addressing both structural and lexical elements in sentence construction. Survey of contemporary grammars, error analysis, sociolinguistic theories of language behaviors, editorial issues such as linguistic sensitivity, the influence of informal on formal usage and the appropriate domain of editorial policy.

WRIT 382 The Writer as Reader (3) This course approaches reading as a part of the writer’s study of the craft. Emphasizing the distinctive ways that writers read, the course focuses on how a piece of writing is constructed by the author and understood by the reader. Students develop the analytic skills necessary to understand the choices other writers have made in their use of language and form.

WRIT 401 Publication & Performance (3) A seminar involving a creative project in a particular literary form to be undertaken by each student. Emphasis on exploring the relationships of writing and publications and on developing one’s writing in specific publications contexts.

WRIT 407 Internship in Professional Writing (3) An opportunity for students to apply skills developed through coursework while gaining practical experience in writing and/or editing within a professional setting. Grading: pass/fail. Course is eligible for a continuing studies grade. prerequisites: senior status and consent of the program director

WRIT 430 Copy Editing & Document Design (3) An advanced technical and professional writing seminar in which each student presents a formal proposal and a major writing project for peer review and critiques other participants’ work at all stages of the project development process.

WRIT 489 Directed Independent Study (1-3) In-depth consideration and completion of a special topic or project in writing. Each student works closely with a faculty member who helps to set goals, develop a course plan and guide progress. The project must be carefully planned and have approval of the instructor involved and the writing programs director.
WRIT 490 Thesis in Writing (3) Directed individual instruction in the writing of an original work. Each student works with a faculty director to guide his/her progress. The thesis must be of honors quality and must be approved by both the director and a second reader, one of whom is usually the program director or the division chair. Course is eligible for a continuing studies grade. prerequisite: 3.5 GPA and/or consent of the program director and the division chair.

WRIT 493 Honors Seminar (3) An advanced interdisciplinary seminar that focuses on important books and issues and encourages independent thinking, clear presentation and an understanding of the concerns and methods of various disciplines. The course may be team taught; topic and instructor(s) may change from semester to semester. Course may be repeated for credit when topic changes. prerequisites: 3.3 GPA and permission of the Denit Honors Program director.

WRIT 494 Honors Project (3-6) Directed individual instruction in an advanced project of the student’s choice; the project must be academically related to this discipline. Each student works closely with a faculty director who guides his/her progress. The project must be of honors quality and must be finally approved by both the faculty director and a second faculty member. Course is eligible for a continuing studies grade. prerequisites: 3.3 GPA and permission of both the Denit Honors Program director and the faculty director.

WRIT 497 Topics in Writing (3) Intensive exploration of topics in writing of mutual interest to students and faculty. Content varies according to the concurrent interests of faculty and students. The subject appears under the Topics heading in the class schedule. Course may be repeated for credit when the topic changes. prerequisite: none unless listed in the current class schedule.