MANAGEMENT AND INFORMATION TECHNOLOGY

Phone: 718.489.5459 and 718.489.5347

Mission of the Management and Information Technology Department

The Management and Information Technology Department offers three undergraduate majors – Entrepreneurship and Organizational Innovation, Management, and Information Technology -- and a graduate degree in Management with five concentrations. The Department's mission is to have its graduates successfully enter the business and IT world and to be prepared to advance in their chosen careers. The Department recognizes that the two disciplines are linked and therefore provides opportunities for students to discover the synergies that can be derived from each major's curriculum.

Areas of Study

The College offers an Associate of Applied Science (A.A.S.) in Business Administration, a Bachelor of Science (B.S.) degree in Entrepreneurship and Organizational Innovation, a Bachelor of Science (B.S.) degree in Management, a Bachelor of Science (B.S.) degree in Information Technology, and a Master of Science (M.S.) in Management. Management majors are encouraged to select a concentration in one of the following areas: Business Analytics, International Business, or Marketing. Minors in Business, Business Analytics, Fashion Retail Management, Human Resource Management, International Business, Digital Marketing, Sports Management, Information Technology, Interactive Multimedia, and Entrepreneurship are also available.

Program Student Learning Outcomes:

Business Administration (A.A.S.)

- PLO 1: Apply the appropriate business processes, concepts, and methodologies to the relevant functional areas of business.
- PLO 2: Organize data and apply analytical methodologies to solve qualitative and quantitative problems in business.
- PLO 3: Demonstrate effective communication skills that result in the successful completion of team projects and tasks.
- PLO 4: Examine professional ethics considering legal, organizational, and societal responsibilities.

Entrepreneurship and Organizational Innovation (B.S.)

- PLO 1: Apply innovation to human resource policy, reward systems, business processes, marketing, and strategic decision making through the lens of social responsibility and diversity, equity, and inclusion practices.
- PLO 2: Analyze business and financial launch, growth, & exit strategies.
- PLO 3: Develop personal and interpersonal skills (entrepreneurial mindset) needed to be a successful 'entrepreneur' and 'intrapreneur'(corporate entrepreneur) across any context.
- PLO 4: Individually and/or collaboratively, argue persuasively for buy-in of innovative ideas or solutions with all-types of stakeholders.

Finance (B.S.)

- PLO 1: Explain the difference and connections between finance, accounting, and economics.
- PLO 2: Develop financial strategies to improve an institution's performance upon its evaluation.
- PLO 3: Describe the different functions of financial markets, instruments, institutions, and regulatory agencies.
- PLO 4: Demonstrate quantitative and analytical skills in finance.
- PLO 5: Demonstrate the ability for teamwork, effective communication, and leadership needed to succeed in finance and related industries.
- PLO 6: Explain the value of diversity, equity, inclusion, and environmental sustainability in finance.

Information Technology (B.S.)

- PLO 1: Apply the appropriate information technology processes, concepts, and methodologies in functional areas of business.
- PLO 2: Organize data to apply analytical methodologies to solve qualitative and quantitative problems related to information technology.
- PLO 3: Communicate effectively to work collaboratively to complete projects or tasks.
- PLO 4: Examine professional ethics considering legal, organizational, and social responsibilities.

Management (B.S.)
Shared by all concentrations:

- PLO 1: Apply the appropriate business processes, concepts, and methodologies.
- PLO 2: Organize data to apply analytical methodologies to solve qualitative and quantitative problems in business.
- PLO 3: Communicate effectively in teams to complete projects and tasks.
- PLO 4: Examine professional ethics in light of legal, organizational, and societal responsibilities.

Business Analytics Concentration:

- PLO 5: Select relevant data to accelerate growth and increase business efficiency and productivity.

International Business Concentration:

- PLO 5: Apply evidence-based solutions to international business problems or opportunities.

Marketing Concentration:

- PLO 5: Outline Marketing Best Practices to Achieve Organizational Goals.

Management (M.S.)

The Master of Science (MS) in Management is a 33-credit, stand-alone, graduate degree program designed for working professionals, combining traditional campus-based classes in the evening with supplemental online and out-of-classroom activities, and delivered on a part-time or full-time basis. This year-round program operates in the fall, spring, and summer semesters, using 7-week terms.

The MS in Management program offers a 21-credit core and seven 12-credit concentrations:

- Business Analytics
- Business Management
- Digital Marketing
- Health Care Management
- Information Technology
- Project Management
- Social Innovation and Entrepreneurship

Program Learning Student Outcomes:

- PLO 1: Demonstrate an understanding of, and evaluate the appropriate use of management processes, concepts, and methodologies.
- PLO 2: Examine professional ethics in light of legal, organizational, and societal responsibilities. Integrate ethical thinking into all aspects of decision making.
- PLO 3: Discuss the significant influences of management in personal, organizational, and societal contexts while articulating the challenges and benefits of managing business activities in a global and diverse world.
- PLO 4: Communicate effectively in written and oral form with a range of audiences to present ideas, decisions, and recommendations on business issues.

Business Analytics Concentration:

- PLO 5: Employ advanced knowledge including methods, technology, skills, and values in their fields to critically interpret and utilize information.

Business Management Concentration:

- PLO 5: Apply core management terms, concepts, and processes. Explain how management integrates functional areas of business organizationally and creates values for customers while adding competitive advantage for organizations.

Digital Marketing Concentration:

- PLO 5: Apply core marketing terms, concepts, and processes. Explain how digital marketing creates value for customers while adding competitive advantage for organizations.

Health Care Concentration:

- PLO 5: Apply core health care management terms, concepts, and processes. Explain how management integrates functional areas of health care organizationally and creates value for customers while adding competitive advantage for organizations.

Information Technology Concentration:

- PLO 5: Apply core information technology terms, concepts, and processes. Explain how information technology integrates cross-functional teams organizationally and creates value for customers while adding competitive advantage for organizations.

Project Management Concentration:

- PLO 5: Apply core project management terms, concepts, and processes. Explain how project management integrates cross-functional teams organizationally and creates value for customers while adding competitive advantage for organizations.

Social Innovation & Entrepreneurship Concentration:

- PLO 5: Apply core entrepreneurship terms, concepts, and processes. Explain how management integrates functional areas of social impact business organizationally and creates value for customers and society while adding competitive advantage for organizations.

Programs

- Business Administration, AAS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/business-administration-aas/)
- Business Analytics Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/business-analytics-minor/)
- Business Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/business-minor/)
- Digital Marketing Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/digital-marketing-minor/)
- Entrepreneurship, BS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/entrepreneurship-bs/)
- Finance, BS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/finance-ba/)
- Human Resources Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/human-resources-minor/)
- Information Technology Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/information-technology-minor/)
- Information Technology, BS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/information-technology-bs/)
- Interactive Multimedia Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/interactive-multimedia-minor/)
- International Business Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/international-business-minor/)
- Management (Business Analytics), MS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-businss-analytics-ms/)
- Management (Business Management), MS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-business-management-ms/)
- Management (Digital Marketing), MS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-digital-marketing-ms/)
- Management (Health Care Management), MS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-health-care-management-ms/)
- Management (Information Technology), MS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-information-technology-ms/)
- Management (Project Management), MS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-project-management-ms/)
- Management (Social Innovation & Entrepreneurship), MS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-social-innovation-entrepreneurship-ms/)

- Management, B.S. — Concentration in Business Analytics (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-bs-concentration-business-analytics/)
- Management, B.S. — Concentration in International Business (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-bs-concentration-international-business/)
- Management, B.S. — Concentration in Marketing (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-bs-concentration-marketing/)
- Management, BS (https://catalog.sfc.edu/catalogue/programs/management-information-technology/management-bs/)
- Project Management Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/project-management-minor/)
- Sports Management Minor (https://catalog.sfc.edu/catalogue/programs/management-information-technology/sports-management-minor/)

Courses
Business

BAN-1301 Fundamentals of Data Analytics (3 Credits)
Requisite(s): IT-1001
This is an introductory course to the key areas of analytical processes, including how data is created, stored, accessed, and how an organization works with data and processes data to enable effective and useful analytics. The course focuses on understanding the fundamentals of data analytics as well as to exploring basic analytics skills and tools through a hands-on approach. Topics include data analytics definitions and terminology, platforms, tools, algorithms and statistical models. The student will explore various models that can be utilized to help summarize, visualize, and interpret data in a variety of disciplines
Typically offered: All Sessions

BAN-2301 Spreadsheet Analytics (3 Credits)
Requisite(s): IT-1001
This course is designed to advance analytical skills in business decision making in the spreadsheet environment. Topics include modeling techniques, spreadsheet functions and spreadsheet auditing, data management, data visualization, optimization, risk analysis and predictive modeling utilizing spreadsheet software.
Typically offered: All Sessions

BAN-3301 Descriptive Analytics and Visualization (3 Credits)
Requisite(s): MAT-1105 or higher
This course will develop the student's ability to organize, analyze, and interpret quantitative business and economic data. It introduces practical and usable methods of gathering and using business data to solve business problems, such as exploratory data analysis, probability concepts, and empirical probability distributions. It includes topics such as graphical data analysis, hypothesis testing, confidence intervals, and simple forecasting using regression techniques. In order to foster the technological competence so necessary in today's hypercompetitive business environment, analysis of data sets and problem solution using spreadsheet software, statistical analysis tools and graphing software.
Typically offered: All Sessions

BAN-3308 Data Analytics for Business (3 Credits)
Requisite(s): MAT-2301 or ORM-3301
This course explores business analytics skills, technologies, practices for continuous iterative exploration and investigation of past business performance to gain insight and drive business planning. Business analytics focuses on developing new insights and understanding of business performance based on data and statistical methods. Building on descriptive analytics, the course will focus on predictive and prescriptive analytics.Topics will include the application of decision science in a business setting, regression analysis, forecasting techniques, optimization methods, and decision analysis.
Typically offered: All Sessions

BAN-3309 Business Forecasting (3 Credits)
Requisite(s): MAT-1109,ORM-3301
Students become familiar with the needs of businesses to forecast demand and are exposed to techniques such as time series analysis and decomposition, regression analysis, moving averages and exponential smoothing, and jackknife methods. Qualitative techniques are also addressed, including top-down and bottom-up forecasting, Delphi Method, and panel of experts approach. Students are also exposed to software packages on the microcomputer.
Typically offered: As Needed

BAN-3310 Production and Operations Management (3 Credits)
Requisite(s): ORM-3301 or MAT-2301
This course introduces students to the complex processes by which such inputs as land, labor, and capital are converted into outputs such as goods and services. Issues include production scheduling, integrated control systems, and control methods for quality, cost, inventory, and projects.
Typically offered: As Needed

BAN-3311 Adv Analytics & Business Intelligence (3 Credits)
Requisite(s): Take BAN-3301
Data analytic and business intelligent techniques are applied to solve a variety of business problems. Topics include advanced regression modeling, financial modeling, categorical data analysis, online analytical processing, data mining, process mining, complex event processing, business performance management, benchmarking, text mining, predictive analytics, and prescriptive analytics to help identify, develop, and create new strategic business opportunities. Use of advanced statistical software. Lab fee.
Typically offered: As Needed

BAN-4995 Independent Study in Orm (1-3 Credits)
Individual research and study with the approval of the Management department.
Typically offered: On Demand

BAN-6001 Business Analysis for Managers (3 Credits)
Graduate students only. This course will cover the application of quantitate techniques to business problems. Topics will include business applications of probability and statistics, forecasting techniques, and decision theory.
Typically offered: All Sessions

BAN-6002 Predictive Analytics (3 Credits)
Requisite(s): BAN-6001
Graduate students only. This course extends the ideas of regression analysis introduced in BAN 6001. It takes a modern approach applicable to managerial decision making in the presence of Big Data. While the course focus centers around prediction, the course will also explore and emphasize the trade-off between prediction power and model interpretability. As the business world rapidly progresses towards a paradigm of data-driven decision making, the primary goal of this course is on understanding both the power and limitations of regression analysis.
Typically offered: All Sessions

BAN-6003 Data Mining (3 Credits)
Requisite(s): BAN-6001
Graduate students only. This course introduces students to the key concepts in the field of data mining and enhances understanding of the issues that business organizations face. The course emphasizes concepts, principles, methods, implementation techniques, and applications of data mining, with a focus on pattern discovery, discussion of pattern evaluation measures; and explore their applications. The course will provide an opportunity for hands-on experimentation with algorithms for data mining using software and cases.
Typically offered: All Sessions

BAN-6300 Emerging Issues of Technology in Analytics (3 Credits)
Requisite(s): BAN-6001
Graduate students only. This course will explore emergent technology topics in business analytics. The subject matter will vary and will be chosen by the instructor prior to registration, with the approval of the department chair. Topics may include a survey of emergent technology issues in business analytics; an introduction to new technologies being utilized in business analytics; or a focus specifically on a small set of emergent technology issues in areas such as (but not limited to) data presentation, data governance, data sharing, machine learning, data visualization, predictive analytics, big data, data modeling, data mining, forecasting, decision analysis, data ethics, data literacy, data quality, or other contemporary issues in business analytics.
Typically offered: All Sessions

BAN-6308 Business Analytics (3 Credits)
Requisite(s): MAT-2301 or BAN-2301,MAT-1109 or MAT-2202
This course is focused on business analytics as the process of collating, sorting, processing, and studying business data, and using statistical models and iterative methodologies to transform data into business insights. . It includes topics such as exploratory data analysis, probability concepts, empirical probability distributions, graphical data analysis, hypothesis testing, confidence intervals, and forecasting using regression techniques. To foster the technological competence analysis of data sets and problem solution using spreadsheet, statistical analysis, and graphing software will be emphasized.

BUS-1001 Organization and Management (3 Credits)
Introduces students to major areas of business and enables them to understand the focus of business concentrations. Examines how businesses use marketing, finance, accounting, human resources, management and technology skills. Includes an examination of diverse issues such as the role of small companies versus large corporations, going public and understanding the implications of legal, political, economic, international, environmental and ethical issues. Includes guest lectures, role-play exercises and videos. 3 credits. Offered every semester.
Typically offered: All Sessions

BUS-1028 Franciscan Career Transformation: Optimizing Human Captial (3 Credits)
Requisite(s): Take 14 credits;,Upper Freshman Standing;
Using a Franciscan, holistic approach coupled with human resource practices, students will learn about the values, missions, and cultures of organizations in various industries to better align each student's personal values and purpose with those of potential future employers. Through a transformative process of reflection, assessments, career exploration, planning and follow-through with preliminary employment strategies, students will take responsibility for their professional satisfaction by establishing a development plan to take them from their remaining time at St. Francis College to their life after the College. Students will increase their self-awareness to learn how to effectively manage their careers and maximize their contribution, as well as create a career development portfolio to proactively use as a tool when pursuing desired professional opportunities.
Fulfills General Education Requirement: FH2
Typically offered: All Sessions

BUS-1204 Business and Society (3 Credits)
Provides the student with an understanding of the many organizations with which a business maintains a relationship. The student gains an awareness of the strategies and tactics businesses use to manage the diversity of demands of such groups as stockholders, workers, consumers, community groups, and government regulators.
Typically offered: As Needed

BUS-1771 Intro to Fashion and Retail Management (3 Credits)
Requisite(s): Take 14 credits;,Upper Freshman Standing;
This course offers an introduction to the fashion and retail industries. Students will learn fashion and retail terminologies and will have the opportunity to learn about career pathways within both industries. Students will examine all segments of fashion, retail and related businesses and learn how both continue to evolve in the consumer and technology-driven marketplace.
Typically offered: All Sessions

BUS-2001 Global Business (3 Credits)
Requisite(s): BUS-1001
In this course, students learn which forces impact international expansion strategy and operations, and how industry and/or technological innovation and disruption influence international business strategy and operations. Emphasis is placed on the impact of political decisions related to international trade, the importance of understanding cultural diversity and the unique financial, logistical and human resource issues faced by global businesses. Students will explore entrepreneurial opportunities within a global context.
Typically offered: As Needed

BUS-2003 Changes in Corporate Culture & Your Career (3 Credits)
Requisite(s): AMS-1001 for students pursuing American Studies minor
This course is designed to explore the vast shifts in corporate culture which have occurred in the past century. The course will present an overall timeline of the changes within the corporate working environment and how it impacts employees, society and the products and services that are created. The historical timeline culminates with an in-depth study of organizations today and how a new employee will be expected to adapt to their unique corporate culture. The course will require students to use critical thinking skills to analyze the changes and how it will impact them in their careers.
Typically offered: As Needed

BUS-2004 Corporate Social Responsibility in Film Career (3 Credits)
Requisite(s): BUS-1001 or ENT-1001
This course will examine a wide range of corporate social responsibility dilemmas, principles, and moral reasoning that impact contemporary businesses through examination of documentaries and popular films combined with real-world case studies. Students will explore how characters in films and business executives in cases confront issues, make choices, and face the consequences of corporate behavior. Through participation in discussions and group projects, students will clarify the importance of ethical and legal behavior in corporate management and explore the role of the company as a member of society.
Fulfills General Education Requirement: PEM
Typically offered: As Needed

BUS-2005 Sustainable Devt: the Business Case Career (3 Credits)
Requisite(s): BUS-1001 or ENT-1001
An increasing number of businesses have discovered that being 'green', 'socially responsible', or 'sustainable' does not mean that they have to forego making money or doing well. In addition, many businesses, especially multinationals, have decided that it is in their, as well as society's, best interests to work toward the United Nations' Sustainable Development Goals (SDGs), even though doing so brings new challenges to how business is done. This course has three purposes. First, it introduces students to the SDGs and what they mean. Second, it builds the business case for engaging in sustainable practices. And third, it provides tools to help students determine and analyze when and how conflicts between the first two can emerge. 3 credits. Offered as needed.
Typically offered: As Needed

BUS-2205 Management of a Small Business (3 Credits)
Requisite(s): BUS-1001
Emphasis is placed on the individual responsibilities involved in operating a family business or in starting up a business such as a retail store, a distribution warehouse, a sales organization, a contracting firm, or any other type of small business. Students study the legal aspects, financial processes, marketing methods, managerial techniques, and general operating procedures that will increase their abilities to achieve and maintain a profitable business entity.
Typically offered: As Needed

BUS-2260 Business Writing: Jumpstart Your Career (3 Credits)
Requisite(s): WRI-1100 or HON-5101
This course will provide instruction and practice in business writing and professionalism.
Typically offered: As Needed

BUS-2772 Fashion Product Development and Sourcing (3 Credits)
Requisite(s): Take 14 credits;,Upper Freshman Standing;
This course focuses on the product development, and sourcing processes of fashion brands, from idea generation, screening, concept development, prototyping, testing and commercialization of new products through launch. Cross-functional relationships among departments and managers responsible for the design, production, marketing, and sales are examined. Special emphasis on sustainability issues.
Typically offered: All Sessions

BUS-3342 Business Ethics (3 Credits)
Requisite(s): One 2000-level PHI course
[Renumbered from BUS 342] Designed to illustrate that responsible behavior can be compatible with a healthy bottom line even in todays highly competitive business world. Basic philosophical and business doctrines are studied and applied to real-life situations. Issues examined include the merits of affirmative action, privacy rights of employees,environmentalism, whether cost savings justify outsourcing production to countries with little protection for workers and whether whistle blowers are protecting the public or betraying fellow employees. This course can be taken either as a business elective or as one of the three philosophy courses required of all students. Prerequisite: PHI 2201 or PHI 2203. 3 credits. Offered as needed.
Typically offered: As Needed

BUS-4000 Business Research- Marketing (3 Credits)
Requisite(s): Junior or Senior standing
An interdisciplinary approach to the study of recognizing and isolating business problems, while demonstrating the use of research as a management tool in guiding executive thinking and decision making. The scope and breadth of the research will be guided by the student's interests in collaboration with the instructor.
Typically offered: As Needed

BUS-4001 Special Topics in Business (3 Credits)
Business is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are contemporary. Topics vary from semester to semester.
Typically offered: As Needed

BUS-4004 Sports Entrepreneurship and Innovation (3 Credits)
This course examines the current trends of innovative and entrepreneurial movements in sports. The multi billion-dollar sports industry offers several entrepreneurial opportunities in the areas sports franchise, sports agency, and small sports business management professions and programs. Case studies of sport business ventures in professional and collegiate sports, and the sports apparel industry will be the emphasis the material covered. This course will provide methods and practices of business plans and the financial aspects associated with entrepreneurial and small business ventures.
Typically offered: As Needed

BUS-4007 Special Topic: Franchising (3 Credits)
Requisite(s): Take MKT-2201;
In this course, students will learn about franchising and understand the legal requirements surrounding franchised businesses. Prereq. BUS1001 or ENT1001
Typically offered: As Needed

BUS-4009 Special Topic: Pricing Strategies (3 Credits)
Requisite(s): Take MKT-2201;
The role of the various pricing frameworks and tactics (e.g. value pricing, cost-plus, segmentation, bundling) in consumer behavior and implications for marketing strategies. Integration of behavioral economicsframeworks and models of consumer behavior with particular attention given to understanding and analyzing the issues, problems, and opportunities characteristic of the theory and practice of setting prices. Pricing examples from various industries and legal aspects of pricing will also be discussed.
Typically offered: As Needed

BUS-4011 Special Topics in Business Sustainabiliy And the Role of Information Technology Media Marketing (3 Credits)
Requisite(s): BUS-1001 or IT-1001
Sustainability has become main stream concept. Many Fortune 500 companies have incorporated sustainability as part of their overall strategy and set sustainability targets. This has elevated the role of information and communication technologies (ICT). ICT emerged as an enabler for executing and measuring an organization's sustainability strategy. It is also a facilitator of innovative business models that contribute to sustainable development. The course provides an elementary overview the concept of sustainability and how companies are integrating sustainability into their strategy. Students learn about the different sustainability rankings and ratings. Special attention will be given to how technology can contribute to sustainable development and environmental and social innovation. In the class students will discuss how businesses can successfully work with IT to advance the triple-bottom line based on the latest research insights and case studies. Students will be required to make a presentation about the sustainability strategy for a tech company at the end of the class.
Typically offered: As Needed

BUS-4017 Special Topics: Business Culture and & Industries in Turkey, Faculty-Led Study Abroad (3 Credits)
Requisite(s): BUS-1001
Introduces students to major areas of business in Istanbul and enables them to understand the focus of business concentrations(course requires travel to Turkey). Examines how Turkish businesses use marketing, finance, accounting, human resources, management and technology skills. Includes an examination of diverse issues such as the role of small companies versus large corporations, going public and understanding the implications of legal, political, economic, international, environmental and ethical issues. Includes guest lectures and visiting businesses in Istanbul. This course will present an overview of Turkish business operations. It will discuss various techniques used by businesses today, what works, what doesn't work and why. It will help you understand the forces that impact business operations, such as the economy, cultural and environmental issues, and political and social pressures. Class Meeting Time (attendance is mandatory): May 16 Introduction May 18-25 Trip to Istanbul May 26-30 Online May 31 Presentation
Typically offered: As Needed

BUS-4019 Special Topics: Marketing Innovation & New Product Development Study Abroad (3 Credits)
Requisite(s): BUS-4018
This course is designed for business and non-business students who want to use their creativity and knowledge to create and market novel products and services for consumers. Students pursuing for-profit or non-profit entrepreneurship ventures will be required to create a value proposition for their new innovation, strategies to protect their intellectual property, and a marketing plan to deliver their new product/service to customers. As a result of this course, students will be capable of conducting effective market analysis, industry analysis, competitive analysis, and risk analysis to successfully market an innovation for an entrepreneurship venture.
Typically offered: As Needed

BUS-4022 Special Events Planning and Management (3 Credits)
Requisite(s): BUS-1001
This course is designed for business and non-business students interested in learning the skills necessary to create, organize, budget, plan, promote and implement a wide-range of events. This range includes but is not limited to: fundraisers and auctions, special receptions, ceremonies and commemorative events, celebrations and reunions, weddings and galas, informative events, meetings and conferences. Through hands-on learning, case studies and guest lectures, students will develop skills necessary for creating their own entrepreneurial events or managing events for private or non-profit organization.
Typically offered: As Needed

BUS-4024 Fundraising and Community Relations (3 Credits)
Requisite(s): Take BUS-1001;
This course provides students with the fundamentals of fundraising and community relations with a special focus on nonprofit organizations, especially those challenges facing small to mid-sized community organizations; development of viable strategies for attracting diverse and sustained financial support for nonprofits; development of strategies for dealing with clients, area residents, members, trustees, legislators, the press, and other important constituents; practical, hands-on exploration of the skills and knowledge needed to equip managers of nonprofits to position their organizations effectively in the community.
Typically offered: As Needed

BUS-4025 Sustainability and Marketing (3 Credits)
Requisite(s): Take BUS-1001;
Many Fortune 500 companies have incorporated sustainability as part of their overall strategy. They have set targets for their triple-bottom line, which includes environmental, social and governance performance metrics. Being a responsible company is good business. The seminar provides an elementary overview the concept of sustainability, how companies are integrating sustainability into their strategy, and how sustainability can be communicated to company's stakeholder groups. They learn the spectrum of sustainability marketing - from sustainability reports to sustainability ratings. Students will discuss global sustainability trends,the rising consumer demand for green and socially responsible products, and potential traps, such as greenwashing.
Typically offered: As Needed

BUS-4026 Human Resources and Technology (3 Credits)
Requisite(s): Take HR-2201 or HR-2204
Technology has altered the Human Resources office as we've known it. The evolution of technology and software programs makes it possible to use systems and data techniques to streamline HR processes. We will explore recruitment, HRIS systems, performance management and social media strategies and their impact to the organization. Whether it's planning for the company's future or creating and implementing cost cutting plans, the tools are available and ready to be part of our everyday duties.
Typically offered: As Needed

BUS-4027 Topic: Nonprofit Management (3 Credits)
Requisite(s): BUS-1001
This course provides an overview of the principal theories, management prac-tices and challenges of nonprofit and nongovernmental organizations. Through readings, case studies and first-hand accounts, students explore the role of non-profits in society, public affairs and facilitating social change. Particular attention is paid to helping students hone communication skills that will be needed throughout their time in the master's program, including self-expres-sion (through class participation), group work (through analysis of a case study), academic writing (by completing two papers) and public speaking (case study presentation).
Typically offered: As Needed

BUS-4990 Internship in Business (1-3 Credits)
Supervised work experience in various fields of business. Requires the submission of a written report. May be taken twice for credit.
Typically offered: On Demand

BUS-4995 Independent Study in Business (1-3 Credits)
Individual research and study with the approval of the Management department.
Typically offered: On Demand

BUS-4998 Capstone Business Policies (3 Credits)
Requisite(s): FIN-3301 or ECO-3331,MKT-2201,MAT-2301 or ORM-3301,Senior Standing - 90 credits, ,HR-2204
The focus of this capstone course is a dynamic, competitive business simulation in which students run a company, filling the roles of managers in such areas as strategic planning, production, operations, marketing, and finance. Students learn about planning, time management, and team building in a business environment.
Typically offered: All Sessions

BUS-5401 Contemporary Business Issues: Sustainable Development (3 Credits)
Contemporary Business Issues is the cover title for Honors courses with a business focus or theme. The theme that will be addressed will be multidisciplinary in nature and of topical interest. Suggested themes include, but are not limited to: Sustainable Development;Business and Culture; Business and the Environment; Reconciling Nationalism and Globalization. Sustainable Development discusses how the disciplines of economics, political science, management, biology, geography, culture and history are comingled in the subject of how all humans can improve their standard of living without exceeding the earth's ability to sustain that standard of living; hence, sustainable development.
Fulfills General Education Requirement: HON
Typically offered: All Sessions

BUS-5402 Business Leaders in Us History Sustainable Development (3 Credits)
This course examines the use of biographies as a way to explore and understand US Economic History. Beginning by evaluating the value of using Biographies as a means of exploring economic history, biographies of well known entrepreneurs and successful business figures such as Vanderbilt, Rockefeller, Morgan and Gates will be studied.
Fulfills General Education Requirement: HON
Typically offered: All Sessions

BUS-6995 Independent Study in Business (1-3 Credits)
Graduate students only. Independent research and study in a topic in Business including submission of a written report. Prerequisites: graduate standing and approval of the department chairperson.
Typically offered: As Needed

BUS-7999 Business Policies Capstone (3 Credits)
Graduate students only. The focus of this capstone course is a dynamic, competitive business simulation in which students run a company, filling the roles of managers in such areas as strategic planning, production, operations, marketing, and finance. Students first learn about the role of strategic planning through case analysis and then apply their skills in the simulation. As managers, students handle labor negotiations, address total quality managment issues, analyze and determine financing options, and address boards of directors.

ENT-1001 Introduction to Entrepreneurship (3 Credits)
This course is designed for business and nonbusiness students who want to learn about entrepreneurship and its importance to the economy and society, entrepreneurial skills, values and characteristics to create their own job inside and outside the corporate world. This course teaches transferable skills required to become an entrepreneur, a small business owner or an entrepreneur, and raises the student's awareness of the legal, business, managerial, creative, analytical and interpersonal skills relevant to setting up and running an innovative organization.
Fulfills General Education Requirement: SEH
Typically offered: All Sessions

ENT-1077 Entrepreneurial Ideation and Mindset (3 Credits)
Requisite(s): Minimun completed 14 credits
In this course, students will develop creative, innovative, and entrepreneurial thinking and begin to apply these as a unified 'success' mindset. The course will explore the skill sets of high performing and motivational leaders through case studies and guest lecturers. Students will examine a number of leadership theories and begin to develop their own leadership style.
Typically offered: All Sessions

ENT-1777 Design Thinking and Innovation (3 Credits)
In this course, students will learn to apply the concepts, theories and methodologies of design thinking, innovation, and entrepreneurship to develop process, service, product, and business design models. Students will focus on customer(client) centric interactions with the local entrepreneurial ecosystem and develop transferable skills including client presentation, networking, collaboration, and leadership.
Fulfills General Education Requirement: HCE
Typically offered: All Sessions

ENT-2001 Entrepreneurial Marketing & New Product Innovation (3 Credits)
Requisite(s): ENT-1001
This course is designed for business and non-business students who want to use their creativity and knowledge to create and market novel products and services for consumers. Students pursuing for-profit or non-profit entrepreneurship ventures will be required to create a value proposition for their new innovation, strategies to protect their intellectual property, and a marketing plan to deliver their new product/service to customers. As a result of this course, students will be capable of conducting effective market analysis, industry analysis, competitive analysis, and risk analysis to successfully market an innovation for an entrepreneurship venture.
Typically offered: As Needed

ENT-2002 Exploring Entrepshp & Innov Thur Resrch Innovation (3 Credits)
Requisite(s): ENT-1001,One ITML course
This course offers a hands-on opportunity for undergraduate students to experience the practice of qualitative research. This course will provide an overview of the nature of qualitative research in entrepreneurship and organizational studies including philosophy of science; qualitative methodologies; research methods including interviewing, focus groups, surveys, document analysis, participant observation and other forms of field work; project design, data collection, data analysis, and dissemination of research; and evaluation of qualitative research. We will explore the advantages, challenges, and ethical implications of research decisions. Students will participate in a faculty-led research project on entrepreneurship with topics and methods that vary from semester to semester. The course requires reading and writing, team discussion, and individual research activities such as interviewing, fieldwork, and/or document analysis. This course is especially helpful for students wishing to pursue a graduate degree.
Typically offered: As Needed

ENT-2003 Social Entrepreneuriship & Sustainable New Businesses (3 Credits)
Requisite(s): ENT-1001 or ENT-1777
In this course students will explore what a social enterprise is and how it is the same as well as different from other types of organizations. Students will investigate how social entrepreneurs are creating new business models in markets that blur the traditional distinctions between for profit and nonprofit companies. Students will explore the use of Franciscan values in developing social enterprises.
Typically offered: As Needed

ENT-2101 Entrepreneurial Finance (3 Credits)
Requisite(s): ENT-1001
This course is designed to help new or aspiring small business owners learn how to analyze financial statements, create financial forecasts, and valuate theirventures. Additionally, students will become aware of the methods used in determining how much money their venture needs in order to be viable, explore tools and approaches used when selling an idea to potential investors, and learn about the different types of financing alternatives available to new and small ventures. The venture capital market will be investigated in detail, including angel financing, as will other financing options including self- financing and debt financing.
Typically offered: As Needed

ENT-2777 Global Entrepreneurship (3 Credits)
Requisite(s): ENT-1001
The course is designed for students from any major who want to learn about international entrepreneurship and its importance to the economy and society, and the specific entrepreneurial skills, values and characteristics needed. The course raises students' awareness of the legal, business, managerial, creative, analytical and interpersonal skills relevant to setting up and running an innovative organization in the international context.
Typically offered: As Needed

ENT-3003 Using Tech in Entrepreneurship (3 Credits)
Requisite(s): ENT-1001
This course will provide an overview of the relevance of technology to the success of new ventures, and highlight specific technology tools, including financial management software, website development services and programs, e-commerce, and social media and e-marketing tools that are crucial for 21st century entrepreneurs in any industry. As part of the course, students will have the opportunity to develop their own website for their small business and e-marketing plan.
Typically offered: As Needed

ENT-3301 Entrepreneurial Design Thinking (3 Credits)
Requisite(s): ENT-1001,ENT-1777
This course combines design thinking methods, traditional business strategy, and the entrepreneurial and innovation mindsets. The course will also focus on the importance of combining these analytical and creative tools to maximize entrepreneurial opportunity. The impact of these mindsets and methods on critical organizational building blocks such as value proposition, revenue streams, customer segments, and sales channels will be explored. The importance of multistakeholder collaboration will also be discussed.
Typically offered: As Needed

ENT-3302 Social Impact Entreprenurship (3 Credits)
Requisite(s): ENT-2003
This course builds on the content material of ENT 2003 and allows for students to develop a more advanced understanding of social entrepreneurship. In this course students explore significant social problems and innovative solutions that drive transformative social change. Students will dive deeper into business models and strategies that social entrepreneurs employ to create high-impact ventures. The course will also cover how multistakeholder collaboration is fundamental for sustainable social change initiatives and will examine how they can be successfully established and maintained.
Typically offered: As Needed

ENT-3307 Enterprise Innov: Circular & Shared Economy Business Models (3 Credits)
Requisite(s): ENT-1001,ENT-1777
Through the entrepreneurial viewpoint and innovation mindset, this course focuses on the circular economy business model (think recycling or reducing resource use) and shared economy business model (think ride-shares or renting out spare space in your home as a hotel room). Students will examine how these innovative business models create sustainable social impact and a unique competitive advantage (think triple bottom line). Students can expect instructor lecture, case study analysis requiring individual written assignments or small group discussions, and experiential projects to explore entrepreneurial opportunities applying the circular and shared economy models.
Typically offered: As Needed

ENT-3308 Entrepreneurial New Venture Funding (3 Credits)
Requisite(s): ENT-3001
This course builds on the content material of ENT-3001 and allows for students to develop a more advanced understanding of entrepreneurial funding for startups. Students will develop a deeper understanding of how and why individual and institutional investors fund entrepreneurial startup ventures. Students will examine the many financing options available to get a new startup venture funded. Students will learn about harvesting via the various types of exits and recapitalizations.
Typically offered: As Needed

ENT-4990 Entrenpreneurship Internship (1-3 Credits)
Students find internships through their own initiative, the Career Development Office, and occasionally through Faculty. Placements depend on the availability of suitable positions and must amount to a minimum of 45 hours for 1 credit, 90 hours for 2 credits, and 135 hours for 3 credits. The faculty internship coordinator, along with the site placement supervisor, will guide and evaluate the quality of the work. Internships must relate to a student's area of focus or proficiencies within the Entrepreneurship and Organizational Innovation major and will provide the student with an opportunity to apply knowledge and skills gained through coursework.
Typically offered: On Demand

ENT-4995 Independent Study in Entrepreneurship And Orgranization Innovation (1-3 Credits)
Requisite(s): ENT-2001,30 credits
Individual research and study under supervision of a department faculty member. Student develops topic which is approved by the faculty advisor. Student and faculty advisor agree upon a schedule of deliverables.
Typically offered: On Demand

ENT-4997 Entrepreneurship and Organziational Innovation Capstone (4 Credits)
Requisite(s): ENT-2001,Senior Standing
The capstone focuses on identifying and assessing business opportunities. In this course students will apply previous course materials to develop a capstone project which will cover material from business idea to prelaunch stage. During multiple team-based projects, students engage in a broad range of important entrepreneurial activities, including team and culture development, customer discovery, solution ideation, business model generation, product development, proof of concept (POC) testing, marketing & preselling, entrepreneurial funding, and other prelaunch activities.
Typically offered: On Demand

ENT-6770 Foundation of Social Innovation & Entrep (3 Credits)
Students will investigate how social entrepreneurs are creating new business models in markets that blur the traditional distinctions between for profit and nonprofit companies. Students will explore the use of Franciscan values such as social justice, social equity, and collaborative service-oriented leadership in developing social enterprises.
Typically offered: As Needed

ENT-6771 Social Change Thru Impact (3 Credits)
Requisite(s): ENT-6770
Students will learn how social entrepreneurs and intrepreneurs act as agents for social change. Through the lens of a social entrepreneur, students will learn how to create their own mission and impact driven enterprises or make impact driven investments. Through the lens of a social intreprenur, students will learn to facilitate social impact and change through corporate social responsibility and sustainability initiatives.
Typically offered: As Needed

ENT-6772 Soc Change: Impact & Mission Drive Bus (3 Credits)
Requisite(s): ENT-6771
Students will learn about the different forms of social enterprises, non-profits, and NGOs and how to quantify social impact and calculate financial metrics for each. The course will explore how the social sector is evolving from traditional philanthropic and charitable models to include new organizational types and hybrid structures that can deliver both sustainable social and economic value.
Typically offered: As Needed

FIN-2001 E-Finance (3 Credits)
Requisite(s): Take BUS-1001
This course will provide an introduction to E-Finance, including its development, the success models with corresponding case studies, the effects on the financial industry and its current status. Topics will include Big Data Analytics Application in E-Finance, Internet Payment, Third-party Payment, Electronic Money, Electronic Trading, P2P Lending, Crowd Funding, Online Banking, Online Insurance, Online Asset Management, Online Broker and E-Finance Risk & Regulation.
Typically offered: As Needed

FIN-3301 Principles of Finance (3 Credits)
Requisite(s): ACC-1001 or ACC-1101,ECO-1201 OR ECO-2202,MAT-1105 or higher
Cross-listed with: ECO-3331. An introduction to the process by which corporations obtain financing for developing their respective businesses. Analytical techniques such as the use of financial ratios, the time value of money, and net present value are examined. Also covered are the workings of the debt and equity markets. This course will not count as a liberal arts elective.
Typically offered: Fall Only

FIN-3302 Managerial Finance (3 Credits)
Requisite(s): ECO-3331 or FIN-3301,MAT-1109
Cross-listed with: ECO-3332. Focuses on the efficient management of the financial resources of the firm. Consideration is given to the time value of money, the statistical analysis of risk, and the use of financial ratios. Explores financial statements, analysis, financial planning, working capital management, short- and long-term financing, and optimal capital structure. Leases versus purchases and dividend policies are studied. This course will not count as a liberal arts elective.
Typically offered: Fall and Spring

FIN-3312 Investment Analysis (3 Credits)
Requisite(s): ECO-3331 or FIN-3301,MAT-1109
Cross-listed with: ECO-3333. Quantitative and qualitative methods of analyzing industrial securities, with emphasis on common stock; principles underlying the selection and management of both individual and institutional portfolios; market timing and technical strategies. This course will not count as a liberal arts elective.
Typically offered: As Needed

FIN-3316 Personal Finance (3 Credits)
Requisite(s): BUS-1001
Analysis of the many aspects of personal finance in modern society. Topics include: personal budgeting, investments, mortgages, insurance, and taxes.
Typically offered: All Sessions

FIN-3317 Principles of Real Estate Finance (3 Credits)
Requisite(s): FIN-3301 or FIN-3316
An introduction to the process by which finance is obtained for the purchase of real estate. This includes presentations on the workings of financial markets for financial instruments related to real estate. There is also substantial discussion of analytical techniques such as the use of financial ratios and time value of money.
Typically offered: All Sessions

FIN-3334 Public Finance (3 Credits)
Requisite(s): ECO-3331 or FIN-3301,MAT-1109
Cross-listed with: ECO-3334. A study of government budgets and the budgetary process. The role of federal, state, and local governments in production and the provision of Social Security. The economic impact of alternative expenditure on income distribution. The impact of government borrowing on financial markets.
Typically offered: Fall Only

FIN-3340 Insurance and Risk Management (3 Credits)
Requisite(s): FIN-3301 or FIN-3316
To learn and understand risk management and all the insurance implications of the business world including property, liability, underwriting, reinsurance, retention of risk, and claims management. To recognize the importance of insurance and risk management within all business industries in our society and to be exposed to the opportunities in this field.
Typically offered: Spring Only

FIN-3341 Property and Liability Insurance (3 Credits)
Requisite(s): FIN-3301 or FIN-3316
This course will provide an introduction to the fundamentals of insurance, basic insurance operations such as underwriting, marketing, and claims. This course also provides students with an understanding of insurance contracts, loss exposures, and risk management.
Typically offered: All Sessions

FIN-3342 Personal Insurance (3 Credits)
Requisite(s): FIN-3301 or FIN-3316
This course analyzes personal loss exposures and insurance coverages, including homeowners dwelling and contents, personal liability, inland marine, auto, life, health and government programs. This course will develop a concept of personal risk management and how insurance products can be used to reduce risk.
Typically offered: All Sessions

FIN-3343 Commercial Insurance (3 Credits)
Requisite(s): FIN-3301 or FIN-3316
This course provides an overview of commercial insurance in general, and a more detailed description of the coverages in all of the major lines of commercial insurance. The course will also cover general contract provisions and highlight significant coverages, exclusions and conditions. The interrelationship of the provisions within the general commercial contract are explained.
Typically offered: All Sessions

FIN-3351 Advanced Finance (3 Credits)
Requisite(s): FIN-3301
A survey of theoretical concepts that are commonly discussed in several key subfields within Finance. For example: 1) the history of money and the evolution from Fixed Exchange Rate systems to Floating Rate systems within the study of International Finance, 2) a presentation of some traditional Investment models in the study of Macroeconomics as a contrast to the notion of Investment within the study of Finance and 3) The Efficient Markets Hypothesis in contrast to the Financial Crisis Theories of Hyman Minsky. There is also a discussion of the application of Time Value analyses for valuing Financial Instruments as well as for decision-making within the process of Capital Budgeting. This is usually followed with a discussion of analytical techniques used in understanding the role of Risk such as Markowitz Analysis and the Capital Asset Pricing Model. Finally, the analysis of the use derivatives such as Options, Futures and Swaps with an exposure to the Black Scholes Option Pricing Model.
Typically offered: As Needed

FIN-3412 Portfolio Management (3 Credits)
Requisite(s): #, Take ECO-3331 or FIN-3301;, #, Take MAT-109;
The construction and analysis of both individual and institutional investment portfolios; portfolio objectives, strategies, and constraints; economic and non-economic variables impacting portfolios; performance measurement. This course will not count as a liberal arts elective.
Typically offered: As Needed

FIN-3416 Introduction to Financial Derivatives (3 Credits)
Requisite(s): ECO-3331 or FIN-3301,MAT-1109
Examines the use of financial derivatives, including options, forwards, futures, and swaps. Topics are approached with a blend of theory and practice. Considerable emphasis on quantative analysis of pricing and strategies with the objective of preparing the student to properly use derivatives in managing the financial risks of a business.
Typically offered: As Needed

FIN-3420 International Finance (3 Credits)
Requisite(s): ECO-3331 or FIN-3301
An examination of the range of financial issues facing companies once they begin conducting business and/or owning assets outside the country in which they are headquartered. This course is a combination of corporate and managerial finance. Issues such as using global financial markets to finance the firm, identifying and managing currency risk, and the operational and strategic use of hedging techniques will be highlighted. Students also will learn how the value of an international firm is affected by the scope and nature of its international operations and international finance activities.
Typically offered: As Needed

FIN-3422 Financial Institutions Management (3 Credits)
Requisite(s): ECO-3331 or FIN-3301
Analyzes the structure of corporations providing financial services. Course examines institutions such as commercial banks, investment banks, and insurance companies. Management problems unique to such firms are considered. Areas examined include management of assets and liabilities, credit and interest rate risk, control of financial operations, and the impact of government regulations.
Typically offered: Fall Only

FIN-4412 Portfolio Management (3 Credits)
Requisite(s): ECO-3331 or FIN-3301,MAT-1109
Cross-listed with: ECO-4433. The construction and analysis of both individual and institutional investment portfolios; portfolio objectives, strategies, and constraints; economic and non-economic variables impacting portfolios; performance measurement. This course will not count as a liberal arts elective.
Typically offered: As Needed

FIN-4990 Internship in Finance (1-3 Credits)
Requisite(s): Open to junior and senior Finance majors. Department,approval required.
The Finance internship is open to majors with junior or senior standing. Placements depend on the availability of suitable positions and must amount to a minimum of 45 hours for 1 credit, 90 hours for 2 credits, and 135 hours for 3 credits. The instructor, along with the site placement supervisor, will guide and evaluate the quality of the work. Internships must relate to a student's area of focus or proficiencies within the Finance major and will provide the student with an opportunity to apply knowledge and skills gained through coursework. During an internship, students must maintain a comprehensive daily log or blog of personal work activities and write a final reflection paper demonstrating how the internship relates to concepts introduced by Finance coursework and how it raises new questions for the student about the field/work in question.
Typically offered: On Demand

FIN-4998 Capstone in Finance (3 Credits)
Requisite(s): Senior Standing (98 credits). Department approval required.
A capstone seminar for Finance seniors to compose a research paper on a topic of financial interest or conduct an analytical project developing a suitable financial strategy for a firm or institution upon studying its current financial condition.
Typically offered: On Demand

FIN-6001 Corporate Finance (3 Credits)
Requisite(s): ACC-6650 or ACC-6601
Graduate students only. This course will provide an introduction to business finance, including corporate financial management and investments. It will provide a framework and introduce concepts and tools for analyzing financial decisions using principles of modern financial theory. Topics will include discounted cash flow techniques, corporate capital budgeting and valuation, investment decisions, financial asset pricing, and theory of market efficiency.
Typically offered: All Sessions

FIN-6501 Advanced Finance (3 Credits)
Requisite(s): FIN-3301
Graduate students only. A survey of theoretical concepts that are commonly discussed in several key subfields within Finance. For example: 1) the history of money and the evolution from Fixed Exchange Rate systems to Floating Rate systems within the study of International Finance, 2) a presentation of some traditional Investment models in the study of Macroeconomics as a contrast to the notion of Investment within the study of Finance and 3) The Efficient Markets Hypothesis in contrast to the Financial Crisis Theories of Hyman Minsky. There is also a discussion of the application of Time Value analyses for valuing Financial Instruments as well as for decision-making within the process of Capital Budgeting. This is usually followed with a discussion of analytical techniques used in understanding the role of Risk such as Markowitz Analysis and the Capital Asset Pricing Model. Finally, the analysis of the use derivatives such as Options, Futures and Swaps with an exposure to the Black Scholes Option Pricing Model.
Typically offered: As Needed

HR-2204 Human Resources Management (3 Credits)
Requisite(s): BUS-1001 or PSY-1100
The study of current human resources administration in various types of organizations incorporating all aspects of human resources management,including recruitment, testing, placement, motivation, training, sensitivity training, cultural differences, governmental assistance and regulations, wage administration, employee benefits, and industrial judicial practices (grievances and arbitration).
Typically offered: All Sessions

HR-3310 Organizational Behavior (3 Credits)
Requisite(s): HR-2204
[Renumbered from HR 310] This course focuses on the fundamental concepts of psychology, sociology, cultural anthropology, and awareness of human behavior in organizational environments. Individual and group reactions,motivation, perception, leadership roles, personality dynamics,and stem culture differentiation are studied through an active learning process. Prerequisite: HR 2201. 3 credits. Offered as needed.
Typically offered: As Needed

HR-3312 DEI at the Workplace (3 Credits)
Requisite(s): HR-2204
The class teaches students how corporations foster diversity, equity, and inclusion (DEI) at the workplace as a core element of their corporate and people strategy to drive long-term shareholder value. Students will learn how corporrations can develop inclusive talent management practices and set key performance indicators to track their DEI goals as a great place to work. The class will also discuss opportunities and challenges to apply DEI practices across all business functions and the supply chain, including Product Development, Sales & Marketing, and Finance.
Typically offered: As Needed

HR-3409 Indust Rel & Collect Bargng (3 Credits)
Requisite(s): HR-2204
The various factors, including legislation, involved in the negotiaion of a contract between employers and employees; the aspects of the administration and interpretation of the contract are analyzed through actual contracts and cases involving portions of the contract, appropriate legislation, and administrative rulings.
Typically offered: Fall Only

HR-3410 Compensation (3 Credits)
Requisite(s): Take HR-2201;
This course examines the development and administration of wage and salary programs in all sectors. Topics include the flow of events that determine what financial rewards are provided. Other areas of study include the role of compensation in recruitment, retention, and promotion.
Typically offered: Spring Only

HR-3501 Organizational Leadership (3 Credits)
Requisite(s): HR-2204
Leaders have the capacity to influence others to take action towards achieving goals. In this class, we will explore contemporary leadership theories and models and examine leadership in organizations, politics, and society through real-world case examples as well as leader portrayals in film, television, and news media. We will discuss the differences and similarities between formal leaders with positional power as well as informal leaders who have developed personal power. We will consider the role of leadership in developing organizations that are ethical, inclusive, and proactive in engaging with shifts in their environments. Students will also build their own leadership capacity through self-assessment, reflection, and practice.
Typically offered: Spring Only

IT-1001 Computer Tools (3 Credits)
In this course students will perfect their ability to interpret primary and secondary sources, recognize when information is needed and to locate, evaluate, and effectively communicate information using appropriate technologies. Including an overview of computers, the Internet, Web 2.0 technologies, Office applications, and data management. You will also learn the fundamentals of computer security, which will enable you to protect your information from the various dangers that exist online. Lab fee.
Fulfills General Education Requirement: ITML1
Typically offered: All Sessions

IT-1002 App Design & Development in the Humanities (3 Credits)
This course will introduce students to the fundamental principles of computing and the building blocks of programming, teaching how to write fun and useful apps using the Xcode development environment. Students will use computers to creatively design and develop apps for iOS mobile devices such as iPhones and iPads integrating digital media with app design. The course topics are targeted specifically to enhance and promote humanities research and engagement.
Fulfills General Education Requirement: ITML1
Typically offered: All Sessions

IT-1102 Multimedia Design (3 Credits)
Requisite(s): IT-1001
This course develops core concepts and practical skills in multimedia design and production. Practical experience is offered in project planning and development including design, production and prototyping, testing, and publishing. The course provides effective techniques for preparing graphics, animation, text, digital audio and video for multimedia applications including CD-Rom titles, websites, marketing presentations, and interactive kiosks. Among the key software tools explored are, Microsoft Publisher, Microsoft PowerPoint, iMovie, Adobe Photoshop CS5, Adobe Illustrator CS5 And Adobe InDesign CS5. Lab fee.
Typically offered: Spring Only

IT-1103 Computer-Based Information Systems (3 Credits)
Requisite(s): IT-1001
Information technology has radically changed the internal operations of organizations and market places in which they compete. The tool kit of skills of the business professional must include the understanding of the fundamentals of information technology and its impacts on the other areas of business--strategic management, finance, accounting, marketing, and operations. This course is intended to provide the basic set of skills. Although it is necessary to have a technology basis, the focus will be on how technology can be applied in business, how it can be used to create products, how it can serve as an agent of change in reorganizing business processes, and how it can radically improve business decision making. Lab fee.
Typically offered: All Sessions

IT-1104 Programming I (3 Credits)
Requisite(s): IT-1103,MAT-1104 or higher
This course stresses three major themes: a rigorous introduction to the process of algorithm problem solving, the organization of computers upon which the resulting programs run, and an overview of the logical and ethical context in which the field of computing exists. Topics include basic ideas on arithmetic problem solving and programming, principles of top-down design, step-wise refinement, and procedural abstraction. Introduction to programming in a structural programming language, basic control structures, data types, and input/output conventions. Lab fee.
Typically offered: All Sessions

IT-1105 Game Programming Using Visual Basic (3 Credits)
Requisite(s): IT-1001
This course is an introduction to game program design and development. Students will use an object-oriented approach to the game program development process involving the following series of steps: find a game idea, identify the audience, identify the game features, determine the look and feel of the game including the interface, create specifications detailing the game rules, create the source code, test the source code, and perform quality assurance. This approach helps students to build multilingual programming and analysis capabilities. Students will use Microsoft Visual Basic to build and execute their game programs. Lab Fee.
Typically offered: All Sessions

IT-1106 Introduction to App Development for Mobile Devices (3 Credits)
Requisite(s): IT-1001
This course is designed to provide an introduction to app development for mobile devices. Students will learn to use the iPhone SDK set of development tools for creating applications for the iPad, iPhone and iPod touch devices by utilizing the iPhone SDK's Xcode, Interface Builder, and UIKit framework to build and design apps. Techniques and tools covered will enable students to use the powerful features of Objective-C, Cocoa Touch, and the various iPhone SDK libraries and frameworks for app development. Presented as a combination of instructor-led presentations and hands-on exercises. Lab fee.
Typically offered: As Needed

IT-2105 Programming II (3 Credits)
Requisite(s): IT-1104
An introduction to object-oriented programming using C++ and/or Java. Topics include advanced features in structured programming using UNITS and an introduction to object-oriented programming (OOP) techniques. Lab fee.
Typically offered: All Sessions

IT-2110 COBOL Programming (3 Credits)
Requisite(s): IT-1001
An introduction to COBOL program design and development. Students will use a structured approach to the program development process involving the following series of steps: identification of the problem, analysis of the problem, identification of the algorithmic patterns, specification of the logical design solution using pseudo code or structure charts, creation of the source code, compilation and testing of the source code, and analysis of program output. This structured approach helps students to build multilingual programming and analysis capabilities. Students will use MicroFocus COBOL software to compile and execute their COBOL programs. Offered in Spring. Lab Fee.
Typically offered: All Sessions

IT-2201 Telecommunications and Networking (3 Credits)
Requisite(s): IT-1103
An introduction to data communications hardware and software and their applications in computer networks. Topics include communication system components, communication sharing, packet switching, network control, common carrier issues, and local area vs. global area networks. Lab fee.
Typically offered: Fall Only

IT-2220 Robotics (3 Credits)
Requisite(s): IT-1001
The objective of this course is to use a hands-on approach to introduce the basic concepts in robotics, focusing on mobile robots and illustrations of current state-of-the-art research and applications. Course information will be tied to lab experiments; students will work in teams to build and test increasingly more complex LEGO Mindstorms-based mobile robots. Lab fee.
Typically offered: As Needed

IT-2270 Computer Forensics (3 Credits)
Requisite(s): IT-1103
Computer forensics--the science of obtaining and analyzing evidence from computers--is the name for a newly emerging field of study and practice that incorporates many areas of expertise. Some of these areas have been called network security, intrusion detection, incident response, infrastructure protection, disaster recovery, continuity planning, software engineering, cyber security, and computer crime investigation. Lab fee.
Typically offered: Fall Only

IT-2410 Web Design (3 Credits)
Requisite(s): IT-1102 is a recommended pre-requisite for IT majors.,IT-1102 is not required for COM majors.
The World Wide Web has increased from a limited number of networked computers to more than 20 million computers worldwide. With the increase of network computing comes the increase in demand for Web page design. This course deals with the design principles of building and maintaining Web pages. Topics include site design using Adobe Dreamweaver CS5 with an introduction to CSS, Adobe Fireworks, Adobe Photoshop CS5 and Adobe Flash CS5. Lab fee.
Typically offered: All Sessions

IT-2420 Multimedia Design and Technologies (3 Credits)
Requisite(s): IT-1001
This course develops core concepts and practical skills in multimedia design and production. Practical experience is offered in project planning and development, including design, production, prototyping, testing, and publishing. This course provides effective techniques for preparing graphics, animation, text, digital audio, and video for multimedia applications including CD-ROM titles, Web sites, marketing presentations, and interactive kiosks. Among the key software tools explored are Director, PhotoShop, Illustrator, Premiere, After Effects, Dreamweaver, and Flash. Web design and development issues include Dynamic HTML, Shockwave, streaming video, and video and QuickTime VR. Also examined are systems configuration and hardware requirements of the multi-platform digital production studio. Lab fee.
Typically offered: Spring Only

IT-2430 Computers in Education (3 Credits)
Requisite(s): IT-1001
A course that focuses on the use of computers in an educational environment. Encourages the implementation of computers and computer-assisted learning in a classroom. Provides the tools to evaluate educational software. The course covers the latest techniques in instructional technology as well as the role of on-line methodologies. Lab fee.
Typically offered: As Needed

IT-2440 Scripting Languages (3 Credits)
Requisite(s): IT-2410
An introduction to scripting languages. This course provides students with an overview of the scripting languages used in today's web-based environments. Students will learn the history of scripting languages, explore scripting languages such as HTML, XML, JavaScript, VBScript, PERL, PHP, Python, and Ruby, learn the differences between each language, and how to select the appropriate language for a task. Lab fee.
Typically offered: As Needed

IT-2445 Digital Video (3 Credits)
Requisite(s): IT-1102
This course explores non-linear editing techniques for professional video production, incorporating real-time professional video and audio editing tools. Principles of video basics, digital video technology, the development and creative process, editing, production, effects and presentation are stressed. Integrating instructor led demonstrations and hands-on projects with Adobe Premiere CS 5.5 students gain precise control over the production process to create professional quality video.
Typically offered: All Sessions

IT-2450 Digital Imaging (3 Credits)
Requisite(s): IT-1102
This course focuses on the interface, the tools, the features, tricks, and tips FOR DIGITAL imaging utilizing Photoshop CS, the industry standard for desktop publishing, multimedia design and web design. This course combines concepts of digital imaging as well as instructor-led demonstrations and hands-on lab exercises with Photoshop CS. Lab fee.
Typically offered: All Sessions

IT-2510 Database Management Systems (3 Credits)
Requisite(s): IT-1103
Design, structure, and applications of database systems. Deals with problems associated with management of information. The course considers concepts such as logical and physical database organization, data security, and database life cycle. Stresses application development through fourth-generation programming techniques. The course emphasizes basic knowledge in data structures, normalization of data, modeling, and database methods. Lab fee.
Typically offered: Fall Only

IT-2520 Advanced Querying and Report Writing (3 Credits)
Requisite(s): IT-2510
An advanced database querying and report writing course examining advanced features of structured query language (SQL) used to retrieve data from databases. Students will learn how to present data in easy-to-read simple and complex reporting formats that satisfy business needs. Lab fee.
Typically offered: Fall Only

IT-2550 Medical Informatics (3 Credits)
Requisite(s): IT-1001
Medical informatics studies the organization of medical information, the effective management of information using computer technology, and the impact of such technology on medical research, education, and patient care. The field explores techniques for assessing current information practices, determining the information needs of health care providers and patients, developing interventions using computer technology, and evaluating the impact of those interventions. This research seeks to optimize the use of information in order to improve the quality of health care, reduce costs, provide better education for providers and patients, and to conduct medical research more effectively.
Typically offered: Spring Only

IT-2620 Business Applications (3 Credits)
Requisite(s): IT-1001
The use of computers and business and financial software packages. The course includes familiarization with budgeting, Additional topics deal with advanced techniques in Excel and basics of Visual Basic. Lab fee.
Typically offered: Spring Only

IT-2690 Computer Support Systems (3 Credits)
Requisite(s): IT-1103
The essential skills for the support and management of end-user computing, including applications development, end-user troubleshooting, and formulating of end-user management strategies. Stragey implementation using policies, procedures, standards, and guidelines are provided. Lab fee.
Typically offered: As Needed

IT-3101 Information Technology Law and Ethics (3 Credits)
Requisite(s): IT-1103
The overnight entry of companies such as Amazon and Napster into mature and established industries has served as a wake-up call to business leaders everywhere to protect their innovations. Included in these new commercial developments are challenges to the fundamentals of intellectual property law, including patent, trademark, copyright, and trade secret laws. This course provides an understanding of the fundamentals of intellectual property law and how it is being used and adapted by businesses to protect their intellectual capital in cyberspace. Also included are discussions about patenting new methods of doing business; the interplay between domain names and trademarks; cyberspace copyright issues including text and graphical infringement, software, and web-site registration; and the impact of technological developments on trade secret agreements.
Typically offered: As Needed

IT-3220 Computer and Network Security (3 Credits)
Requisite(s): IT-1103
Students examine the management of information security and data processing facilities including thefts of data, unauthorized uses of information technology, computer viruses, and methods of protecting information with an emphasis on networked computers. The course covers information technology laws, issues of privacy, and security planning. Lab fee.
Typically offered: Fall Only

IT-3240 Linux (3 Credits)
Requisite(s): IT-1103
This course is intended to give students an opportunity to learn the basics of the Linux operating system. Topics include the history of Linux and the Open Source movement, intellectual property issues, obtaining and installing Linux and Open Office, file system structure, text editing, basic commands, basic scripting, job scheduling, and installing applications. Lab fee.
Typically offered: As Needed

IT-3301 Project Management (3 Credits)
Requisite(s): IT-1001
This course is an introduction to project management. Topics include overview and concepts of project management and strategies; planning successful projects (defining, specifying, delivery of scheduling, budgeting); implementing (organizing the team, work assignments, team building, effective leadership); executing (performance measurement, maintaining the schedule, adjustments, corrections, record keeping, status reporting, communications); managing conflict; time management; performance measurement; contract documentation; data transfer; lessons learned. Lab fee.
Typically offered: Fall Only

IT-3310 Systems Analysis and Design (3 Credits)
Requisite(s): IT-2510
Traditional analysis, design, and implementation of information systems through data flow analysis and the systems development life cycle approach. The fundamentals of systems analysis and how it is applied to the development of information systems in the business environment. Major topics include methods of systems investigation, feasibility study, input-output design, system documentation, communication, implementation of new systems. control, and security. Also treated are data structures, data definition, normalization of data, and the use of Computer-Aided Software Engineering (CASE) tools. Lab fee.
Typically offered: Spring Only

IT-3313 Computer Support Systems (3 Credits)
Requisite(s): IT-1103
The essential skills for the support and management of end-user computing, including applications development, end-user troubleshooting, and formulating of end-user management strategies. Stragey implementation using policies, procedures, standards, and guidelines are provided. Lab fee.
Typically offered: As Needed

IT-3320 Advanced Management Information Systems (3 Credits)
Requisite(s): IT-1103
An advanced course that provides a thorough and comprehensive analysis of systems theory concepts, information systems (IS) terminology, and concepts in the context of the management of the business organization. Emphasis is placed on IS topics relevant to students seeking to become managers or IS professionals. Existing modeling, planning, design, implementation, evaluation, integration, management, and control approaches for various types of IS systems are presented. Theory and practical application considerations are highlighted in each topic. Emerging topics and technologies are also explored. Lab fee.
Typically offered: Spring Only

IT-3397 Mentored Internship for Project Mgt. (3 Credits)
Requisite(s): IT-3301
This course will provide students with an opportunity to see and participate in projects at an on-site internship and continue to learn the Project Management Body of Knowledge (PMBOK) project concepts during weekly mentoring sessions with faculty. Students will work on-site at an internship for no less than 10/hours per week. Faculty will work closely with students to develop an understanding of how project management theory is applied in a work-based environment. Student activities on-site will vary depending on the project. They will participate, at some level, with the project team and document the project from initiation through the completion of the internship. Lab Fee.
Typically offered: Fall Only

IT-3400 HTML & CSS for Web Design (3 Credits)
Requisite(s): IT-2410
This course will provide students with state of the art approaches to website design. The students will learn to create an attractive and organized website using HTML and CSS with emphasis on page layout consistency and navigation. This course combines concepts of web design as well as instructor-led demonstrations and hands-on Lab Exercises that will allow students to use CSS to control the look and placement of HTML elements.
Typically offered: All Sessions

IT-3410 E-Commerce Integration (3 Credits)
Requisite(s): IT-1001
This course integrates the primary business functions of marketing and finance with the advances made through computers and information technology. Topics include Internet marketing, business-to-business commerce, business-to-consumer commerce, distribution, and tracking channels. Students will prepare an e-commerce business plan that will include pro-forma financial statements.
Typically offered: All Sessions

IT-3420 Knowledge Systems and Data Mining (3 Credits)
Requisite(s): IT-2510
Intelligence as a basic component of information systems is rapidly becoming a necessity. Rapid advancements in the nature of commerce, in particular the emergence of the Internet as an exchange and delivery channel, have led to an explosion in the quality and quantity of data. This course covers the process of converting raw data into the knowledge that is required to support decision-making by automating the process of knowledge discovery. The course also explores how data mining increases productivity. Lab fee.
Typically offered: Spring Only

IT-3510 Data Structures (3 Credits)
Requisite(s): IT-2105
Data representation and manipulation concepts, processing of linearly-linked lists and multi-linked data structures, operations with tree structures, sorting and searching techniques, data management systems, and programs using different structure and algorithms are studied. Lab fee.
Typically offered: Spring Only

IT-3520 Advanced Database Management (3 Credits)
Requisite(s): IT-2510
An introduction to advanced database management systems concepts and practices. This course examines object-oriented database concepts, design, implementation, and management. Students will learn to use data modeling tools such as UML and extended ER modeling. In addition, students will examine current database management environments such as centralized and distributed databases, data warehousing, data marts, data mining, database security, client/server and Internet database environments, mobile databases, and emerging technology. Lab fee.
Typically offered: Spring Only

IT-3540 Computer Architecture and Organization (3 Credits)
Requisite(s): IT-2105
A top-down approach to computer design. The fundamentals of computer architecure including an introduction assembly line language of programming and machine language set design. Major topics include computer organization; logical modules, CPU, memory, and I/O units; instruction cycles and the control unit; hardwiring and microprogramming; data path implementation of the CPU. Also treated are memory structure and timing, I/O interface, interrupts, programmed I/O, and DMA. Lab fee.
Typically offered: Fall Only

IT-3610 Decision Support Systems (3 Credits)
Requisite(s): IT-2510
Introduction to the use of information and mathematical modeling to support managerial analysis and decision making. Develops the skills required to solve problems using computer-based modeling in selected disciplines such as marketing or finance. Topics may include the examination of components of a decision-support system, simulation model development, group decision-making technology, and intelligent support systems. Lab fee.
Typically offered: As Needed

IT-3620 Business Applications (3 Credits)
Requisite(s): IT-1001
The use of computers and business and financial software packages. The course includes familiarization with budgeting, Additional topics deal with advanced techniques in Excel and basics of Visual Basic. Lab fee.
Typically offered: Spring Only

IT-3680 Operating Systems (3 Credits)
Requisite(s): IT-2105
Overview of user interface. Topics include process structure, creation and context switching, system calls, process cooperation, memory management, virtual memory, I/O management, interrupt handling, file structure, directories, fault-tolerance. Students design projects involving construction of portions of the operating system. Lab fee.
Typically offered: Spring Only

IT-4000 Special Topics: Graphic Design (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4001 Spcl Topics: Photoshop Web and Video (3 Credits)
Requisite(s): IT-2420 and IT-2410;
The focus of this course is how to use Adobe Photoshop CS5 to enhance web and video images more effectively. This course is a combination of instructor-led demonstration and hands-on practice. It is ideal for students who want to increase their understanding of Photoshop CS5 and web development. The course will touch upon how to integrate these skills with software such as: Fireworks, Dreamweaver and Flash. Lab fee.
Typically offered: As Needed

IT-4002 Special Topic: Web Site Development With Django (3 Credits)
Requisite(s): IT-1103
This course will help a student develop a web site from scratch using Django. Django is a Python based web site development environment which has been used to fuel sites like the edX platform, Instagram, Pinterest, the Washington Post, the New York Times and NASA. This course is intended for first time web site developers though a basic understanding of web architecture is helpful. Lab fee.
Typically offered: As Needed

IT-4003 Special Topic: Web Project Management Using an Agile Approach (3 Credits)
Requisite(s): IT-1103
This course will introduce agile project management concepts with a focus on web technology projects. We will cover the history of agile development, its roots in Lean manufacturing, and specific methodologies like SCRUM. We will modify to deal with Web site development issues (User Experience design, quality assurance, continuous integration). Prerequisite: IT1103 Lab fee.
Typically offered: As Needed

IT-4004 Special Topic: Programming With Swift Using an Agile Approach (3 Credits)
Requisite(s): IT-1001
This course introduces fundamental structured and object-oriented programming concepts and techniques, using Swift, and is intended for all who plan to use computer programming in their studies and careers. Topics covered include variables, arithmetic operators, control structures, arrays, functions, dynamic memory allocation, files, class usage and class writing. Program design and testing are covered as well as more advanced object-oriented concepts including inheritance. Prerequisite: IT 1001 or equivalent
Typically offered: As Needed

IT-4005 Special Topic: Intro to Adobe Illustrato Using an Agile Approach (3 Credits)
Requisite(s): IT-1102
This course offers a practical overview of Adobe Illustrator's interface, workspace, tools, and techniques. Adobe Illustrator is a powerful tool that allows you to create graphics. You will practice building with shapes, colors, gradients, and lines while integrating good use of typography. Prerequisite: IT 1102
Typically offered: As Needed

IT-4007 Special Topic: Programming With Python Workshop in Financial Markets (3 Credits)
Requisite(s): IT-1103,Take MAT-1104 or higher
This course introduces programming in a high-level language using Python. The course emphasizes problem-solving and object-oriented programming techniques. Topics include assignment, input/output, selection, looping, scalar and array data structures, string and numeric data and modular development.
Typically offered: Fall and Spring

IT-4010 Special Topics: Visual Basic (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Basic computer skills using Microsoft products and basic programming knowledge desired but not required. Lab fee.
Typically offered: As Needed

IT-4015 Special Topics: Java (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4020 Special Topics: 3-D Drawing (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4030 Special Tpc: After Effect 4-D (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4040 Special Tpc: Game Programming w Visual Basic (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4041 Special Topic: Python Programming (3 Credits)
Requisite(s): IT-1103
A gentle introduction to Python using a gaming project as the basis for learning the language. The course is intended for both introductory programming and those with some prior programming experience. Lab fee.
Typically offered: As Needed

IT-4042 Special Topic: Programming for Business Workshop in Financial Markets (3 Credits)
Requisite(s): IT-1103
This course introduces students to the foundations of programming in business. It involves both a theoretical component (e.g. learning about basic programming concepts like loops, arrays and functions) as well as a practical component (e.g. implementing algorithms on a computer). The course also provides the initial steps towards learning the principles of object-oriented design and programming through the use of Python programming language.
Typically offered: Fall and Spring

IT-4050 Special Topics: Dream Weaver (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4060 Topics: Intro to Prog Using Mathematica (3 Credits)
Requisite(s): Take IT-1001
Mathematica is software used to perform both simple and complicated mathematical calculations which requires no previous knowledge of or training in computer programming. This course is an introduction to Mathematica and will cover such areas as graphing in two and three dimensions in addition to the language of the software itself. Because it can be used for a variety of computational techniques it can be useful for students in mathematics, the sciences, economics, finance, accounting and information technology. Lab fee.
Typically offered: As Needed

IT-4070 Special Topics in It: Project Management For Entrepreneurs (3 Credits)
Requisite(s): IT-1001
Planning, building and growing your own business requires an interdisciplinary skill set. This course will help students to develop the skills they need to see their business plan become a reality using the project management core principles. Communication, risk management, leadership, resource and time management are all part of the applied learning skills that will be taught in this course. Students will actively participate in developing their own project plan to create and develop their own business including how to find funding, develop new products, and developing marketing plans.
Typically offered: As Needed

IT-4100 Special Topics: Photoshop (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4110 Special Topics: Advanced Excel (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4120 Special Topics: Advanced Photoshop (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4130 Spcl Tpcs: Intensive Adobe Illustrator (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4140 Special Topics: Intensive Flash (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4150 Sp Tpcs: Intensive Desktop Publishing (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4160 Special Topics: Advanced Access (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4990 Internship in Information Technology (1-3 Credits)
Supervised work experience in various fields of IT. Re¼quires the submission of a written report. Number of credits awarded is dependent on number of hours worked during the semester, with a maximum of 3 credits in a semester. Students are limited to a total of 6 internship credits. Students find internships through their own initiative, the Career Development Office, and occasionally the Management & IT Department.
Typically offered: On Demand

IT-4995 Independent Study in Information Technology (1-3 Credits)
Individual research and study with the approval of the Management & IT Department. If qualified, an independent study can be used to substitute for an elective in IT. Projects must be scheduled for completion within the semester. Prerequisite: prior application and approval of Chairperson and faculty mentor required.
Typically offered: On Demand

IT-4998 Capstone Project (4 Credits)
Requisite(s): Senior standing,IT-2201,IT-3310,IT-3101,ENT-1001
This course provides students with an opportunity to apply their theoretical knowledge to a practical problem in the area of information systems. This project is a general investigation and report within the subject area of information systems. The student group can develop a mock business demonstrating how information technology may be integrated into the operations of that company. Students will be applying the entrepreneurial mindset and explore the commercialization of their project. Students work under the supervision of the course director.
Typically offered: Fall Only

IT-6001 Information Systems for Managers (3 Credits)
Graduate students only. This course will provide an overview of information systems concepts. Students will explore how information systsm can give organizations a competitive advantage while providing managers with tools for planning, decision making, and effective controls. Students will explore the value of information systems for transforming business operations through review and analysis of literature and case studies.
Typically offered: All Sessions

IT-6002 Systems Analysis and Design (3 Credits)
Requisite(s): IT-6001
Graduate students only. This course introduces the principles of systems analysis and design. Students explore the fundamental knowledge of how computer systems are analyzed and designed through different methodologies. Many concepts and applications are taught with practical examples. The key topics of this course include fundamentals of systems analysis and design, different phases of analysis and design, analysis requirements, analysis process, design essentials, quality assurance, and implementation. Students will complete practical lab assignments as well as quizzes and research papers.
Typically offered: All Sessions

IT-6003 Computer Networks and Security (3 Credits)
Requisite(s): IT-6001
Graduate students only. This course introduces the principles and applications of computer networks and security. Students explore the fundamental knowledge of computer networks and how cyber security is essential to protect computer networks. Many concepts and applications are taught with practical examples. The key topics of this course include Introduction to Computer Networks, Applications, Link and Physical Layers, Network Layers, Transport Layer, Introduction to Cyber Security, and Cyber Threats and Defenses. Students will complete practical lab assignments as well as quizzes and research papers.
Typically offered: All Sessions

IT-6004 Database Management (3 Credits)
Requisite(s): IT-6001
Graduate students only. This course focuses on the design, implementation, and management of databases. Topics include strategic database planning, entity-relationship modeling, theory of the relational model, data normalization, distrubted database processing, and the SQL language. Emphasizes database support for global business operations and explores ethical issues and concerns relating to modern database and data warehousing techniques. Students will complete a number of practical lab assignments as well quizzes and research papers.
Typically offered: All Sessions

IT-6005 Operating Systems (3 Credits)
Requisite(s): IT-6001
Graduate students only. This course will cover topics from the broad field of operating systems, including basic operating system structure, file systems and storage servers, memory management techniques, process scheduling and resource management, threads, distributed and peer-to-peer systems, and security. The courses will examine influential historical systems and important current efforts, extracting lessons both on how to build systems as well as how to evaluate operating systems. Students will complete a number of practical lab assignments as well as quizzes and research papers.
Typically offered: All Sessions

MGT-6001 Organization and Strategy (3 Credits)
Graduate students only. This course will provide an overview of organizational theory and business strategy in the context of modern organizations. Students will develop an understanding of organizations as dynamic, evolving systems through review and analysis of the literature, case studies, and class discussions.
Typically offered: All Sessions

MGT-6002 Special Topics in Organizational Mgmt (3 Credits)
Requisite(s): MGT-6001
Graduate students only. This course will explore specific, identified topics in organizational management. The subject matter will be chosen by the instructor prior to registration, with the approval of the department chair. Topics may include leadership, strategic planning, project management, strategic human resources management, or other contemporary concerns in organizational management.
Typically offered: Spring Only

MGT-6003 Org'l Development and Change Mgmt (3 Credits)
Requisite(s): MGT-6001
Graduate students only. This course will explore the issues, theories and methods associated with organizational development and change management. Topics will include organizational culture, intervention strategies, and overcoming resistance to change. Students will focus on building management skills to aid organizations in successfully adapting to uncertainty and implementing new practices.
Typically offered: Summer Only

MGT-6100 Graduate Workshop (0 Credits)
Open to graduate students in M.S. in Management only. This course will explore contemporary topics in management and provide an opportunity for graduate students to interact with each other through a combination of lecture and group activities. Topics may include leadership, strategic planning, human resources management, business communications, or current issues in organizational management. Students must enroll in this course in each term to continue in the M.S. in Management.
Typically offered: All Sessions

MGT-6101 Graduate Seminar in Management (0 Credits)
Open to graduate students in M.S. in Management only. This course will explore contemporary topics in management and provide an opportunity for graduate students to interact with each other through a combination of lecture and group activities. Topics may include leadership, strategic planning, human resources management, business communications, or current issues in organizational management. Students must enroll in this course in each term to continue in the M.S. in Management.
Typically offered: All Sessions

MGT-6900 Research in Management (3 Credits)
Requisite(s): Take 3 graduate level credits.,Take 3 graduate level credits with a minimum GPA of 3.0.,Department Chair approval.
A supervised, guided research project for students in the M.S. in Management program. Includes participation in faculty-led activities to discuss and analyze communication, ethical, management, and organizational behavior in health care administration, digital marketing, project management, or social innovation and entrepreneurship. May be taken for two semesters (up to 6 credits) with the approval of program director or department chair.
Typically offered: As Needed

MGT-6990 Supervised Externship (1-3 Credits)
Must be a full-time student in M.S. in Management who has completed at least 9 credits of graduate coursework with 3.0 average and department approval.A supervised and observed volunteer, internship,externship, or work experience for full-time students in the M.S. in Management program. Includes participation in faculty-led activities to discuss and analyze communication, ethical, management, and organizational behavior at host site.
Typically offered: All Sessions

MGT-6998 Capstone Project (3 Credits)
Requisite(s): Student must have completed a minimum of 27 credits in,graduate level courses. Students should register for,MGT-6998 in their final semester.,MGT-6001 MKT-6001 IT-6001 BAN-6001 FIN-6001
Graduate students only. This course will be a culminating experience for the MS in Management program. The aim of the capstone is to assess students' ability to synthesize and integrate the knowledge and skills they have developed throughout their coursework rather than to introduce new concepts. Working in a team, students will consult with a client to address a real business problem by preparing a business and marketing plan while addressing accounting, financial, and legal issues and technology considerations.
Typically offered: Fall Only

MKT-RQT1 Marketing Required (3 Credits)
Typically offered: All Sessions

MKT-2201 Introduction to Marketing (3 Credits)
Requisite(s): BUS-1001 or ENT-1001
The purpose of this course is to introduce students to the activities and processes involved with marketing organizations, goods, and services in a global economy. This is an introductory course designed to familiarize students with the activities and strategies employed by marketers, as well as the key terms associated with the field. The student will acquire a conceptual base for understanding the role of marketing in a business environment, as the course explores the major components of the marketing mix, the 4Ps (product, pricing, place/distribution, and promotion). For promotion, the class will discuss especially social media marketing. Case studies and marketing planning will be studied so that the student gains an understanding of the critical role marketing plays in the strategy of a firm.
Typically offered: All Sessions

MKT-2202 Travel and Economic Geography (3 Credits)
Requisite(s): MKT-2201
This course provides the vital geographical information required as a successful travel and tourist manager. Comprehensive discussions of the elements of geography including population, physical landforms, climate, and cultural setting. Cartographical understanding of desirable regions and places. An in-depth examination of the relationship between geography, travel, and tourism.
Typically offered: As Needed

MKT-2203 Introduction to Travel and Tourism (3 Credits)
Requisite(s): MKT-2201
This course provides the student with a basic knowledge of travel and its various purposes: business, educational, cultural, therapeutic, recreational, and family activities. The factors affecting demand and supply are studied in detail. The course concludes with the major elements of tourism: foundations of transportation/accommodations, business, and special activities that lure people to travel.
Typically offered: As Needed

MKT-2204 Gender and Sexuality in Marketing (3 Credits)
Requisite(s): Take BUS-1001 or ENT-1001
This course seeks to refine students' understanding of marketing by exploring how commercial enterprises are influenced by -- and influence -- society's norms about gender, gender identity, sexuality, sexual orientation, and sexual identity. While business and marketing are often viewed as external to other domains of social life, brands and companies choose to support or confront society's understanding of gender and sexuality through their communications to consumers about product and service offerings. Topics covered include the situational analysis, strategic marketing planning, and the marketing mix with an emphasis on segmenting, targeting, and promotion. Students will analyze marketing campaigns for products and services promoted to men, women, and non-gender conforming people, as well as to individuals with diverse sexual orientations and identities, in both the United States and globally. Prerequisite/ Corequisite: BUS 1001 or ENT 1001
Fulfills General Education Requirement: WHG
Typically offered: All Sessions

MKT-2440 Intro to Digital Marketing (3 Credits)
Requisite(s): Complete 30 credits ,One Course from ITML (FYC)
This course provides a fundamental understanding of digital marketing and ecommerce. It will provide an overview of where digital marketing is today and what trends will impact the way we do digital marketing in the future (i.e. AI and chat bots). Then we look at the different aspects and instruments of digital marketing, including Website/ecommerce sites, search engine optimization, search engine marketing, and social media. Throughout the class we will analyze best practices via case studies across industries, with a focus on retail and consumer products.
Typically offered: As Needed

MKT-3304 Marketing Management (3 Credits)
Requisite(s): MKT-2201
An in-depth study using the case method of markets, market planning, and marketing decisions. Students learn to evaluate products in relation to consumer demand, market segments, competitive positioning, alternate distributed channels, and relative price lining. Managerial aspects of the marketing functions are stressed.
Typically offered: As Needed

MKT-3307 Advertising and Sales Promotion (3 Credits)
Requisite(s): MKT-2201
An advanced course in contemporary advertising and sales promotion techniques used by market-oriented business firms. Students write copy; plan space, TV, and radio ads; determine budgets; and develop campaigns for media, direct marketing, and point-of-sale displays. Agency/client relationships, corporate advertising departments, trade shows, and business expositions are explored.
Typically offered: As Needed

MKT-3309 Relationship Management (3 Credits)
Requisite(s): MKT-2201
A course geared to developing personal selling abilities. A typical corporation's sales function in the marketing structure is studied to teach methods for recruitment of sales personnel, training, setting quotas, and operation of a field sales force.
Typically offered: As Needed

MKT-3315 Public Relations (3 Credits)
Requisite(s): MKT-2201
Provides a thorough grounding in the techniques of public relations within the marketing department and throughout the entire corporation. Students learn to write media news releases, newsletters, and speeches; plan full campaigns; and handle crisis situations. Techniques and strategies of leading firms are presented through case histories.
Typically offered: As Needed

MKT-3316 Fashion and Retail Merchandising (3 Credits)
Requisite(s): MKT-2201 or BUS-1771
This course examines the contemporary retail industry with a focus on Omni channel retailing. Students will develop an understanding of the global-retail marketplace and explore entrepreneurial opportunities within the retail sector. Topics include operations, planning, buying, pricing, sourcing, the product development cycle, promotions, store layout, visual merchandising, ecommerce, logistics and distribution.
Typically offered: As Needed

MKT-3317 Consumer Behavior (3 Credits)
Requisite(s): MKT-2201
This course will examine concepts, theories, and methods applicable to the study of consumer behavior. In general, the aim of this course is to gain a better understanding of consumer behavior related theories and how they contribute to effective and efficient marketing activities from the perspective of the consumer, marketer, and public policy maker. Since understanding the consumer is at the essence of marketing, this course is ideal for those pursuing careers in brand management, new product development, advertising, services, and other consumer related industries.
Typically offered: All Sessions

MKT-3330 International Marketing (3 Credits)
Requisite(s): MKT-2201
Modern marketing crosses borders with an ever-growing volume of industrial and consumer products that are exported, imported, or manufactured by firms located in one nation for distribution in another. This course expands the principles of marketing to include planning, pricing, distributing, and promoting of global products and those earmarked for sale in selected foreign markets.
Typically offered: As Needed

MKT-3370 Travel and Tourism Management (3 Credits)
Requisite(s): MKT-2201
The course provides students with an opportunity to explore the relationship between marketing and the tourism industry. It will emphasize the collaborative efforts that exist between airlines, hotels, restaurants, and travel agents. Topics covered include research analysis, strategies, market segmentation, product development, packaging, services, sales, advertising, distribution, mix, etc. Students will work as part of a team that develops a marketing plan for a destination which follows the hospitality and travel marketing system model and which will include advertising and collateral support materials.
Typically offered: As Needed

MKT-3777 Intro to Brand Management (3 Credits)
Requisite(s): MKT-2001, ENT-2001, or BUS-2772
This course will focus on the building blocks of growing and managing a brand, as well as advanced and special topics of brand management that will provide a well-rounded look at issues in integrating the brand into overall marketing and company activities. This course provides students with insights into how profitable brand strategies can be created and the implications for brand management professionals. The class blends marketing theory and practice to provide perspective on the brand management function.
Typically offered: As Needed

MKT-3788 Marketing Research and Analysis (3 Credits)
Requisite(s): MKT-2201 or MKT-2440,Take 1 BAN course
In this course students will learn technology-based marketing research and analysis. The course begins with an introduction to product, consumer, competitive and market research. We then move on to apply various analytics tools to generate marketing insights from data in such areas as segmentation, targeting and positioning, satisfaction management, customer lifetime analysis, customer choice, text analysis and search analytics.
Typically offered: As Needed

MKT-3881 Content Marketing for Businesses (3 Credits)
Requisite(s): MKT-2201 or MKT-2440,Take 1 BAN course
In this course students will gain insights on how companies are using content marketing as part of their digital marketing strategy. They will learn how to develop and a measureable content marketing strategy that can drive awareness, interest, and purchasing behavior. This includes understanding the different content types and formats and publishing channels. They will discuss how content marketing relates to search engine optimization (SEO). The class includes case study discussions, guest lectures, and group exercises. Students will work on the development of a content marketing strategy for a company and present it in class.
Typically offered: As Needed

MKT-3888 Social Media Marketing for Businesses (3 Credits)
Requisite(s): MKT-2201 or MKT-2440,Take 1 BAN course
In this course students will gain insights on how social media marketing creates new opportunities - and also challenges - for businesses, associations, governments and non-profits, as part of their digital marketing strategy. They will learn how to create a social media strategy for businesses and how to measure the impact of social media on the business. This includes understanding the difference between owned, earned, and paid media and selecting the right social media platforms for the customers that the businesses serve. The class includes a deep dive into the key social media channels used by businesses today, including LinkedIn, Twitter, YouTube, Facebook, Instagran, TikTok, Snapchat, and Pinterest. The class includes case study discussions, guest lectures, and group exercises. Students will work on the development of a social media marketing strategy for a company and present it in class.
Typically offered: As Needed

MKT-4998 Independent Study in Tourism Development (1-3 Credits)
Individual research and study on topics to be determined jointly by the student and advisor. Requires Management department approval.
Typically offered: As Needed

MKT-6001 Marketing for Managers (3 Credits)
Graduate students only. This course will provide a managerial overview of the marketing process in a contemporary, customer-driven organization. Students will explore strategy and decision-making in the context of marketing activities. The relationship between strategic planning and marketing will be explored, along with contemporary ethical issues in marketing management. Topics will include consumer behavior and decision-making; segmenting, targeting, and positioning strategies; strategic use of marketing research; and the implementation of marketing activities, using the marketing mix.
Typically offered: All Sessions

MKT-6002 Digital Marketing (3 Credits)
Requisite(s): MKT-6001;
Graduate students only. This course provides a comprehensive overview of digital marketing, including an introduction to new and emerging formats and platforms, how to integrate digital approaches into the marketing plan, and how to use digital tools and tactics to execute marketing strategy. Topics will include content marketing, social media, email marketing, mobile marketing, website user experience (UX), search engine optimization (SEO), search engine marketing (SEM), paid advertising, reputation management, and emerging approaches such as artificial intelligence, personalization, and augmented and virtual reality. IV.Prerequisites: MKT 6001 Marketing for Managers.
Typically offered: Summer Only

MKT-6003 Digital Brand Management (3 Credits)
Requisite(s): MKT-6001;
Graduate students only. This course provides an overview of the foundations of developing and managing a brand in the digital space and how to integrate the brand into the company's marketing and strategic activities. Topics will include brand awareness, brand engagement, the shift from a one-way conversation to consumers towards a two-way conversation with consumers, and the role of influencers and brand advocates. Prerequisites: MKT 6001 Marketing for Managers.
Typically offered: Fall Only

MKT-6317 Consumer Behavior (3 Credits)
Requisite(s): MKT-6001;
Graduate students only. This course provides an overview of consumer behavior, including the external and internal influences on consumer decision making, the consumer buying process, and how marketers can use consumer insights to develop successful marketing activities to support company strategy. Topics will include psychological theories of personality, motivation, memory, habit, and identity and how these inform consumer decision making; sociocultural factors such as social networks, reference groups, and social demography; impulsive and deliberate purchasing; brand loyalty; experiential marketing; and product satisfaction. Prerequisites: MKT 6001 Marketing for Managers.
Typically offered: Spring Only

MKT-6995 Independent Study in Business (1-3 Credits)
Graduate students only. Independent research and study in a topic in Business including submission of a written report. Prerequisites: graduate standing and approval of the department chairperson.
Typically offered: As Needed

PM-4010 Project Risk Management (3 Credits)
Requisite(s): IT-3301
This course focuses on the principles, strategies, and skills project managers need to successfully and proactively minimize and manage risks associated with projects in today's global environment. Students will learn how to identify, quantify, minimize, monitor and control project risks. They will learn how to distinguish between project risks, threats, opportunities, and obstacles, minimize project risks, maximize project opportunities, and manage project obstacles in order to achieve project success.
Typically offered: As Needed

PM-4020 Finance for Project Managers (3 Credits)
Requisite(s): IT-3301
This course is designed to provide an overview of the financial aspects of project management. The students will learn the basic financial theory. The course will cover the full life-cycle of financial management of a project starting with how projects are funded, budgets are developed and monitored and correction techniques for cost variances.
Typically offered: As Needed

PM-4030 Optimizing Project Management Teams (3 Credits)
Requisite(s): IT-3301
This course focuses on the human side of project management. Students will learn the principles, concepts, and theories of group formation and dynamics, and will learn how to turn groups into teams. They will learn the qualities, attributes, and skills needed to successfully manage, lead, and motivate project teams. In addition, students will learn effective interpersonal communication skills, leadership strategies, conflict resolution skills, and how to guide and influence others.
Typically offered: As Needed

PM-6000 Fundamentals of Project Management (3 Credits)
This course is designed to provide an overview of project management practices and the practical application of these standards to business projects in any industry. The participants will learn project management guidelines and how these can be used to address a range of project challenges. Students will be expected to complete exercises which apply what they have learned in a team setting.
Typically offered: Fall Only

PM-6010 Project Risk Management (3 Credits)
Requisite(s): PM-6000
This course focuses on the principles, strategies, and skills project managers need to successfully and proactively minimize and manage risks associated with projects in todays world. Students will learn how to identify, quantify, minimize, monitor and control project risks. They will learn how to distinguish between project risks, threats, opportunities, and obstacles, minimize project risks, maximize project opportunities, and manage project obstacles in order to achieve project success.
Typically offered: Summer Only

PM-6020 Finance for Project Mgrs (3 Credits)
Requisite(s): PM-6000
This course is designed to provide an overview of the financial aspects of project management. The students will learn the basic financial theory and see how it applies to business cases. The course will cover the full life-cycle of financial management of a project starting with how projects are funded, budgets are developed and monitored and correction techniques for cost variances.
Typically offered: Summer Only

PM-6030 Optimizing Project Management Teams (3 Credits)
Requisite(s): PM-6000
This course focuses on the human side of project management. Students will learn the principles, concepts, and theories of group formation and dynamics, and will learn how to turn groups into teams. They will learn the qualities, attributes, and skills needed to successfully manage, lead, and motivate project teams. In addition, students will learn effective interpersonal communication skills, leadership strategies, conflict resolution skills, and how to guide and influence others.
Typically offered: Spring Only

PM-6995 Ind Stdy- Project Management (3 Credits)
Students who are enrolled in graduate study in Project Management may undertake independent study under the direction of a faculty member.

SPM-1001 Introduction to Sports Management (3 Credits)
This course is a survey course that is designed to provide students with an overview of the basic organizational and business structure of the diverse and expanding field of sports management. The content areas include Professional, Olympic, and intercollegiate, as well as the exercise/fitness promotion business sectors. Additional topics will include sports law, ethics, sports journalism and communications, as well as sports marketing. The student will be exposed to the different sports career opportunities, requirements for entrance into the various employment areas and the trends in the industry
Typically offered: All Sessions

SPM-2050 Facility and Event Management (3 Credits)
Requisite(s): SPM-1001
This course studies the guidelines and principles of managing sport and recreation events and facilities. Topics include event logistics, critical planning techniques, negotiations, funding, and facility design, operation, and maintenance.
Typically offered: As Needed

SPM-2070 Organization Theory in Sport Management (3 Credits)
Requisite(s): Take BUS-1001 or SPM-1001
This is a course designed to provide students with a strong foundation in organization theory and application of that theory in the context of sport management. Real-world, key issues currently faced by sport managers will be explored. Topics include organization theory, structure, effectiveness, design options, power, politics, conflict, and decision making within sport organizations. The student will be exposed to sport organization theory in practical terms and learn how to apply the knowledge in real-world situations through analysis of current trends in the industry.
Typically offered: As Needed

SPM-2080 Sports and the Law (3 Credits)
Requisite(s): SPM-1001
Cross-listed with: BL-2401. An introduction to law as it relates to sports management; U.S. legal process and court system; constitutional and anti-discrimination law; the law of torts, contracts, agency, labor, business organizations: franchising, sole proprietorships, partnerships, LLCs, and corporations; antitrust, intellectual property and licensing.
Typically offered: As Needed

SPM-4001 Special Topics: Sports & Society (3 Credits)
This course analyses contemporary issues in sports and encourages students to think critically about the impact of athletics on American culture and society; as well as an in-depth look beyond wins and loses. A history of the development and dynamics of sports will also be reviewed. Other topics include the influence of sports on race, gender, politics, economy, etc.
Typically offered: As Needed

SPM-4002 Special Topic: Professional & Collegiate Sports and Governing Organizations (3 Credits)
Requisite(s): SPM-1001
An examination of American sports leagues, conferences and governing bodies. Topics that will be covered include: how the governing organizations were formed; problems faced in governing professional and collegiate sports; the relationship between member institutions and governing bodies; the role of the commissioner; governing organizations and their role in disciplining member institutions; realignment and expansion; marketing; public relations, licensing; athletic scholarships, Title IX.
Typically offered: As Needed

SPM-4003 Special Topic: Sports, Social Media and Engagement (3 Credits)
Requisite(s): SPM-1001
The digital sports landscape has changed substantially over the past 10 years, and it has altered the way content is produced and consumed. Professional sports leagues, teams, and athletic departments must keep up with the demand to provide value to fans and sponsors through engaging content. This course will cover social media techniques and strategies in a sports setting, both from an academic and practitioner perspective. Additional topics include mobile, data, branding, monetization, current news topics, and participation in sports-social media conversations, among others.
Typically offered: As Needed

Information Technology

IT-1001 Computer Tools (3 Credits)
In this course students will perfect their ability to interpret primary and secondary sources, recognize when information is needed and to locate, evaluate, and effectively communicate information using appropriate technologies. Including an overview of computers, the Internet, Web 2.0 technologies, Office applications, and data management. You will also learn the fundamentals of computer security, which will enable you to protect your information from the various dangers that exist online. Lab fee.
Fulfills General Education Requirement: ITML1
Typically offered: All Sessions

IT-1002 App Design & Development in the Humanities (3 Credits)
This course will introduce students to the fundamental principles of computing and the building blocks of programming, teaching how to write fun and useful apps using the Xcode development environment. Students will use computers to creatively design and develop apps for iOS mobile devices such as iPhones and iPads integrating digital media with app design. The course topics are targeted specifically to enhance and promote humanities research and engagement.
Fulfills General Education Requirement: ITML1
Typically offered: All Sessions

IT-1102 Multimedia Design (3 Credits)
Requisite(s): IT-1001
This course develops core concepts and practical skills in multimedia design and production. Practical experience is offered in project planning and development including design, production and prototyping, testing, and publishing. The course provides effective techniques for preparing graphics, animation, text, digital audio and video for multimedia applications including CD-Rom titles, websites, marketing presentations, and interactive kiosks. Among the key software tools explored are, Microsoft Publisher, Microsoft PowerPoint, iMovie, Adobe Photoshop CS5, Adobe Illustrator CS5 And Adobe InDesign CS5. Lab fee.
Typically offered: Spring Only

IT-1103 Computer-Based Information Systems (3 Credits)
Requisite(s): IT-1001
Information technology has radically changed the internal operations of organizations and market places in which they compete. The tool kit of skills of the business professional must include the understanding of the fundamentals of information technology and its impacts on the other areas of business--strategic management, finance, accounting, marketing, and operations. This course is intended to provide the basic set of skills. Although it is necessary to have a technology basis, the focus will be on how technology can be applied in business, how it can be used to create products, how it can serve as an agent of change in reorganizing business processes, and how it can radically improve business decision making. Lab fee.
Typically offered: All Sessions

IT-1104 Programming I (3 Credits)
Requisite(s): IT-1103,MAT-1104 or higher
This course stresses three major themes: a rigorous introduction to the process of algorithm problem solving, the organization of computers upon which the resulting programs run, and an overview of the logical and ethical context in which the field of computing exists. Topics include basic ideas on arithmetic problem solving and programming, principles of top-down design, step-wise refinement, and procedural abstraction. Introduction to programming in a structural programming language, basic control structures, data types, and input/output conventions. Lab fee.
Typically offered: All Sessions

IT-1105 Game Programming Using Visual Basic (3 Credits)
Requisite(s): IT-1001
This course is an introduction to game program design and development. Students will use an object-oriented approach to the game program development process involving the following series of steps: find a game idea, identify the audience, identify the game features, determine the look and feel of the game including the interface, create specifications detailing the game rules, create the source code, test the source code, and perform quality assurance. This approach helps students to build multilingual programming and analysis capabilities. Students will use Microsoft Visual Basic to build and execute their game programs. Lab Fee.
Typically offered: All Sessions

IT-1106 Introduction to App Development for Mobile Devices (3 Credits)
Requisite(s): IT-1001
This course is designed to provide an introduction to app development for mobile devices. Students will learn to use the iPhone SDK set of development tools for creating applications for the iPad, iPhone and iPod touch devices by utilizing the iPhone SDK's Xcode, Interface Builder, and UIKit framework to build and design apps. Techniques and tools covered will enable students to use the powerful features of Objective-C, Cocoa Touch, and the various iPhone SDK libraries and frameworks for app development. Presented as a combination of instructor-led presentations and hands-on exercises. Lab fee.
Typically offered: As Needed

IT-2105 Programming II (3 Credits)
Requisite(s): IT-1104
An introduction to object-oriented programming using C++ and/or Java. Topics include advanced features in structured programming using UNITS and an introduction to object-oriented programming (OOP) techniques. Lab fee.
Typically offered: All Sessions

IT-2110 COBOL Programming (3 Credits)
Requisite(s): IT-1001
An introduction to COBOL program design and development. Students will use a structured approach to the program development process involving the following series of steps: identification of the problem, analysis of the problem, identification of the algorithmic patterns, specification of the logical design solution using pseudo code or structure charts, creation of the source code, compilation and testing of the source code, and analysis of program output. This structured approach helps students to build multilingual programming and analysis capabilities. Students will use MicroFocus COBOL software to compile and execute their COBOL programs. Offered in Spring. Lab Fee.
Typically offered: All Sessions

IT-2201 Telecommunications and Networking (3 Credits)
Requisite(s): IT-1103
An introduction to data communications hardware and software and their applications in computer networks. Topics include communication system components, communication sharing, packet switching, network control, common carrier issues, and local area vs. global area networks. Lab fee.
Typically offered: Fall Only

IT-2220 Robotics (3 Credits)
Requisite(s): IT-1001
The objective of this course is to use a hands-on approach to introduce the basic concepts in robotics, focusing on mobile robots and illustrations of current state-of-the-art research and applications. Course information will be tied to lab experiments; students will work in teams to build and test increasingly more complex LEGO Mindstorms-based mobile robots. Lab fee.
Typically offered: As Needed

IT-2270 Computer Forensics (3 Credits)
Requisite(s): IT-1103
Computer forensics--the science of obtaining and analyzing evidence from computers--is the name for a newly emerging field of study and practice that incorporates many areas of expertise. Some of these areas have been called network security, intrusion detection, incident response, infrastructure protection, disaster recovery, continuity planning, software engineering, cyber security, and computer crime investigation. Lab fee.
Typically offered: Fall Only

IT-2410 Web Design (3 Credits)
Requisite(s): IT-1102 is a recommended pre-requisite for IT majors.,IT-1102 is not required for COM majors.
The World Wide Web has increased from a limited number of networked computers to more than 20 million computers worldwide. With the increase of network computing comes the increase in demand for Web page design. This course deals with the design principles of building and maintaining Web pages. Topics include site design using Adobe Dreamweaver CS5 with an introduction to CSS, Adobe Fireworks, Adobe Photoshop CS5 and Adobe Flash CS5. Lab fee.
Typically offered: All Sessions

IT-2420 Multimedia Design and Technologies (3 Credits)
Requisite(s): IT-1001
This course develops core concepts and practical skills in multimedia design and production. Practical experience is offered in project planning and development, including design, production, prototyping, testing, and publishing. This course provides effective techniques for preparing graphics, animation, text, digital audio, and video for multimedia applications including CD-ROM titles, Web sites, marketing presentations, and interactive kiosks. Among the key software tools explored are Director, PhotoShop, Illustrator, Premiere, After Effects, Dreamweaver, and Flash. Web design and development issues include Dynamic HTML, Shockwave, streaming video, and video and QuickTime VR. Also examined are systems configuration and hardware requirements of the multi-platform digital production studio. Lab fee.
Typically offered: Spring Only

IT-2430 Computers in Education (3 Credits)
Requisite(s): IT-1001
A course that focuses on the use of computers in an educational environment. Encourages the implementation of computers and computer-assisted learning in a classroom. Provides the tools to evaluate educational software. The course covers the latest techniques in instructional technology as well as the role of on-line methodologies. Lab fee.
Typically offered: As Needed

IT-2440 Scripting Languages (3 Credits)
Requisite(s): IT-2410
An introduction to scripting languages. This course provides students with an overview of the scripting languages used in today's web-based environments. Students will learn the history of scripting languages, explore scripting languages such as HTML, XML, JavaScript, VBScript, PERL, PHP, Python, and Ruby, learn the differences between each language, and how to select the appropriate language for a task. Lab fee.
Typically offered: As Needed

IT-2445 Digital Video (3 Credits)
Requisite(s): IT-1102
This course explores non-linear editing techniques for professional video production, incorporating real-time professional video and audio editing tools. Principles of video basics, digital video technology, the development and creative process, editing, production, effects and presentation are stressed. Integrating instructor led demonstrations and hands-on projects with Adobe Premiere CS 5.5 students gain precise control over the production process to create professional quality video.
Typically offered: All Sessions

IT-2450 Digital Imaging (3 Credits)
Requisite(s): IT-1102
This course focuses on the interface, the tools, the features, tricks, and tips FOR DIGITAL imaging utilizing Photoshop CS, the industry standard for desktop publishing, multimedia design and web design. This course combines concepts of digital imaging as well as instructor-led demonstrations and hands-on lab exercises with Photoshop CS. Lab fee.
Typically offered: All Sessions

IT-2510 Database Management Systems (3 Credits)
Requisite(s): IT-1103
Design, structure, and applications of database systems. Deals with problems associated with management of information. The course considers concepts such as logical and physical database organization, data security, and database life cycle. Stresses application development through fourth-generation programming techniques. The course emphasizes basic knowledge in data structures, normalization of data, modeling, and database methods. Lab fee.
Typically offered: Fall Only

IT-2520 Advanced Querying and Report Writing (3 Credits)
Requisite(s): IT-2510
An advanced database querying and report writing course examining advanced features of structured query language (SQL) used to retrieve data from databases. Students will learn how to present data in easy-to-read simple and complex reporting formats that satisfy business needs. Lab fee.
Typically offered: Fall Only

IT-2550 Medical Informatics (3 Credits)
Requisite(s): IT-1001
Medical informatics studies the organization of medical information, the effective management of information using computer technology, and the impact of such technology on medical research, education, and patient care. The field explores techniques for assessing current information practices, determining the information needs of health care providers and patients, developing interventions using computer technology, and evaluating the impact of those interventions. This research seeks to optimize the use of information in order to improve the quality of health care, reduce costs, provide better education for providers and patients, and to conduct medical research more effectively.
Typically offered: Spring Only

IT-2620 Business Applications (3 Credits)
Requisite(s): IT-1001
The use of computers and business and financial software packages. The course includes familiarization with budgeting, Additional topics deal with advanced techniques in Excel and basics of Visual Basic. Lab fee.
Typically offered: Spring Only

IT-2690 Computer Support Systems (3 Credits)
Requisite(s): IT-1103
The essential skills for the support and management of end-user computing, including applications development, end-user troubleshooting, and formulating of end-user management strategies. Stragey implementation using policies, procedures, standards, and guidelines are provided. Lab fee.
Typically offered: As Needed

IT-3101 Information Technology Law and Ethics (3 Credits)
Requisite(s): IT-1103
The overnight entry of companies such as Amazon and Napster into mature and established industries has served as a wake-up call to business leaders everywhere to protect their innovations. Included in these new commercial developments are challenges to the fundamentals of intellectual property law, including patent, trademark, copyright, and trade secret laws. This course provides an understanding of the fundamentals of intellectual property law and how it is being used and adapted by businesses to protect their intellectual capital in cyberspace. Also included are discussions about patenting new methods of doing business; the interplay between domain names and trademarks; cyberspace copyright issues including text and graphical infringement, software, and web-site registration; and the impact of technological developments on trade secret agreements.
Typically offered: As Needed

IT-3220 Computer and Network Security (3 Credits)
Requisite(s): IT-1103
Students examine the management of information security and data processing facilities including thefts of data, unauthorized uses of information technology, computer viruses, and methods of protecting information with an emphasis on networked computers. The course covers information technology laws, issues of privacy, and security planning. Lab fee.
Typically offered: Fall Only

IT-3240 Linux (3 Credits)
Requisite(s): IT-1103
This course is intended to give students an opportunity to learn the basics of the Linux operating system. Topics include the history of Linux and the Open Source movement, intellectual property issues, obtaining and installing Linux and Open Office, file system structure, text editing, basic commands, basic scripting, job scheduling, and installing applications. Lab fee.
Typically offered: As Needed

IT-3301 Project Management (3 Credits)
Requisite(s): IT-1001
This course is an introduction to project management. Topics include overview and concepts of project management and strategies; planning successful projects (defining, specifying, delivery of scheduling, budgeting); implementing (organizing the team, work assignments, team building, effective leadership); executing (performance measurement, maintaining the schedule, adjustments, corrections, record keeping, status reporting, communications); managing conflict; time management; performance measurement; contract documentation; data transfer; lessons learned. Lab fee.
Typically offered: Fall Only

IT-3310 Systems Analysis and Design (3 Credits)
Requisite(s): IT-2510
Traditional analysis, design, and implementation of information systems through data flow analysis and the systems development life cycle approach. The fundamentals of systems analysis and how it is applied to the development of information systems in the business environment. Major topics include methods of systems investigation, feasibility study, input-output design, system documentation, communication, implementation of new systems. control, and security. Also treated are data structures, data definition, normalization of data, and the use of Computer-Aided Software Engineering (CASE) tools. Lab fee.
Typically offered: Spring Only

IT-3313 Computer Support Systems (3 Credits)
Requisite(s): IT-1103
The essential skills for the support and management of end-user computing, including applications development, end-user troubleshooting, and formulating of end-user management strategies. Stragey implementation using policies, procedures, standards, and guidelines are provided. Lab fee.
Typically offered: As Needed

IT-3320 Advanced Management Information Systems (3 Credits)
Requisite(s): IT-1103
An advanced course that provides a thorough and comprehensive analysis of systems theory concepts, information systems (IS) terminology, and concepts in the context of the management of the business organization. Emphasis is placed on IS topics relevant to students seeking to become managers or IS professionals. Existing modeling, planning, design, implementation, evaluation, integration, management, and control approaches for various types of IS systems are presented. Theory and practical application considerations are highlighted in each topic. Emerging topics and technologies are also explored. Lab fee.
Typically offered: Spring Only

IT-3397 Mentored Internship for Project Mgt. (3 Credits)
Requisite(s): IT-3301
This course will provide students with an opportunity to see and participate in projects at an on-site internship and continue to learn the Project Management Body of Knowledge (PMBOK) project concepts during weekly mentoring sessions with faculty. Students will work on-site at an internship for no less than 10/hours per week. Faculty will work closely with students to develop an understanding of how project management theory is applied in a work-based environment. Student activities on-site will vary depending on the project. They will participate, at some level, with the project team and document the project from initiation through the completion of the internship. Lab Fee.
Typically offered: Fall Only

IT-3400 HTML & CSS for Web Design (3 Credits)
Requisite(s): IT-2410
This course will provide students with state of the art approaches to website design. The students will learn to create an attractive and organized website using HTML and CSS with emphasis on page layout consistency and navigation. This course combines concepts of web design as well as instructor-led demonstrations and hands-on Lab Exercises that will allow students to use CSS to control the look and placement of HTML elements.
Typically offered: All Sessions

IT-3410 E-Commerce Integration (3 Credits)
Requisite(s): IT-1001
This course integrates the primary business functions of marketing and finance with the advances made through computers and information technology. Topics include Internet marketing, business-to-business commerce, business-to-consumer commerce, distribution, and tracking channels. Students will prepare an e-commerce business plan that will include pro-forma financial statements.
Typically offered: All Sessions

IT-3420 Knowledge Systems and Data Mining (3 Credits)
Requisite(s): IT-2510
Intelligence as a basic component of information systems is rapidly becoming a necessity. Rapid advancements in the nature of commerce, in particular the emergence of the Internet as an exchange and delivery channel, have led to an explosion in the quality and quantity of data. This course covers the process of converting raw data into the knowledge that is required to support decision-making by automating the process of knowledge discovery. The course also explores how data mining increases productivity. Lab fee.
Typically offered: Spring Only

IT-3510 Data Structures (3 Credits)
Requisite(s): IT-2105
Data representation and manipulation concepts, processing of linearly-linked lists and multi-linked data structures, operations with tree structures, sorting and searching techniques, data management systems, and programs using different structure and algorithms are studied. Lab fee.
Typically offered: Spring Only

IT-3520 Advanced Database Management (3 Credits)
Requisite(s): IT-2510
An introduction to advanced database management systems concepts and practices. This course examines object-oriented database concepts, design, implementation, and management. Students will learn to use data modeling tools such as UML and extended ER modeling. In addition, students will examine current database management environments such as centralized and distributed databases, data warehousing, data marts, data mining, database security, client/server and Internet database environments, mobile databases, and emerging technology. Lab fee.
Typically offered: Spring Only

IT-3540 Computer Architecture and Organization (3 Credits)
Requisite(s): IT-2105
A top-down approach to computer design. The fundamentals of computer architecure including an introduction assembly line language of programming and machine language set design. Major topics include computer organization; logical modules, CPU, memory, and I/O units; instruction cycles and the control unit; hardwiring and microprogramming; data path implementation of the CPU. Also treated are memory structure and timing, I/O interface, interrupts, programmed I/O, and DMA. Lab fee.
Typically offered: Fall Only

IT-3610 Decision Support Systems (3 Credits)
Requisite(s): IT-2510
Introduction to the use of information and mathematical modeling to support managerial analysis and decision making. Develops the skills required to solve problems using computer-based modeling in selected disciplines such as marketing or finance. Topics may include the examination of components of a decision-support system, simulation model development, group decision-making technology, and intelligent support systems. Lab fee.
Typically offered: As Needed

IT-3620 Business Applications (3 Credits)
Requisite(s): IT-1001
The use of computers and business and financial software packages. The course includes familiarization with budgeting, Additional topics deal with advanced techniques in Excel and basics of Visual Basic. Lab fee.
Typically offered: Spring Only

IT-3680 Operating Systems (3 Credits)
Requisite(s): IT-2105
Overview of user interface. Topics include process structure, creation and context switching, system calls, process cooperation, memory management, virtual memory, I/O management, interrupt handling, file structure, directories, fault-tolerance. Students design projects involving construction of portions of the operating system. Lab fee.
Typically offered: Spring Only

IT-4000 Special Topics: Graphic Design (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4001 Spcl Topics: Photoshop Web and Video (3 Credits)
Requisite(s): IT-2420 and IT-2410;
The focus of this course is how to use Adobe Photoshop CS5 to enhance web and video images more effectively. This course is a combination of instructor-led demonstration and hands-on practice. It is ideal for students who want to increase their understanding of Photoshop CS5 and web development. The course will touch upon how to integrate these skills with software such as: Fireworks, Dreamweaver and Flash. Lab fee.
Typically offered: As Needed

IT-4002 Special Topic: Web Site Development With Django (3 Credits)
Requisite(s): IT-1103
This course will help a student develop a web site from scratch using Django. Django is a Python based web site development environment which has been used to fuel sites like the edX platform, Instagram, Pinterest, the Washington Post, the New York Times and NASA. This course is intended for first time web site developers though a basic understanding of web architecture is helpful. Lab fee.
Typically offered: As Needed

IT-4003 Special Topic: Web Project Management Using an Agile Approach (3 Credits)
Requisite(s): IT-1103
This course will introduce agile project management concepts with a focus on web technology projects. We will cover the history of agile development, its roots in Lean manufacturing, and specific methodologies like SCRUM. We will modify to deal with Web site development issues (User Experience design, quality assurance, continuous integration). Prerequisite: IT1103 Lab fee.
Typically offered: As Needed

IT-4004 Special Topic: Programming With Swift Using an Agile Approach (3 Credits)
Requisite(s): IT-1001
This course introduces fundamental structured and object-oriented programming concepts and techniques, using Swift, and is intended for all who plan to use computer programming in their studies and careers. Topics covered include variables, arithmetic operators, control structures, arrays, functions, dynamic memory allocation, files, class usage and class writing. Program design and testing are covered as well as more advanced object-oriented concepts including inheritance. Prerequisite: IT 1001 or equivalent
Typically offered: As Needed

IT-4005 Special Topic: Intro to Adobe Illustrato Using an Agile Approach (3 Credits)
Requisite(s): IT-1102
This course offers a practical overview of Adobe Illustrator's interface, workspace, tools, and techniques. Adobe Illustrator is a powerful tool that allows you to create graphics. You will practice building with shapes, colors, gradients, and lines while integrating good use of typography. Prerequisite: IT 1102
Typically offered: As Needed

IT-4007 Special Topic: Programming With Python Workshop in Financial Markets (3 Credits)
Requisite(s): IT-1103,Take MAT-1104 or higher
This course introduces programming in a high-level language using Python. The course emphasizes problem-solving and object-oriented programming techniques. Topics include assignment, input/output, selection, looping, scalar and array data structures, string and numeric data and modular development.
Typically offered: Fall and Spring

IT-4010 Special Topics: Visual Basic (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Basic computer skills using Microsoft products and basic programming knowledge desired but not required. Lab fee.
Typically offered: As Needed

IT-4015 Special Topics: Java (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4020 Special Topics: 3-D Drawing (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4030 Special Tpc: After Effect 4-D (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4040 Special Tpc: Game Programming w Visual Basic (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4041 Special Topic: Python Programming (3 Credits)
Requisite(s): IT-1103
A gentle introduction to Python using a gaming project as the basis for learning the language. The course is intended for both introductory programming and those with some prior programming experience. Lab fee.
Typically offered: As Needed

IT-4042 Special Topic: Programming for Business Workshop in Financial Markets (3 Credits)
Requisite(s): IT-1103
This course introduces students to the foundations of programming in business. It involves both a theoretical component (e.g. learning about basic programming concepts like loops, arrays and functions) as well as a practical component (e.g. implementing algorithms on a computer). The course also provides the initial steps towards learning the principles of object-oriented design and programming through the use of Python programming language.
Typically offered: Fall and Spring

IT-4050 Special Topics: Dream Weaver (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4060 Topics: Intro to Prog Using Mathematica (3 Credits)
Requisite(s): Take IT-1001
Mathematica is software used to perform both simple and complicated mathematical calculations which requires no previous knowledge of or training in computer programming. This course is an introduction to Mathematica and will cover such areas as graphing in two and three dimensions in addition to the language of the software itself. Because it can be used for a variety of computational techniques it can be useful for students in mathematics, the sciences, economics, finance, accounting and information technology. Lab fee.
Typically offered: As Needed

IT-4070 Special Topics in It: Project Management For Entrepreneurs (3 Credits)
Requisite(s): IT-1001
Planning, building and growing your own business requires an interdisciplinary skill set. This course will help students to develop the skills they need to see their business plan become a reality using the project management core principles. Communication, risk management, leadership, resource and time management are all part of the applied learning skills that will be taught in this course. Students will actively participate in developing their own project plan to create and develop their own business including how to find funding, develop new products, and developing marketing plans.
Typically offered: As Needed

IT-4100 Special Topics: Photoshop (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4110 Special Topics: Advanced Excel (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4120 Special Topics: Advanced Photoshop (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4130 Spcl Tpcs: Intensive Adobe Illustrator (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4140 Special Topics: Intensive Flash (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4150 Sp Tpcs: Intensive Desktop Publishing (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4160 Special Topics: Advanced Access (3 Credits)
Information technology is a rapidly changing discipline. The focus of this course is to address the need to cover different topics that are on the cutting edge of IT. Topics vary from semester to semester. Lab fee.
Typically offered: As Needed

IT-4990 Internship in Information Technology (1-3 Credits)
Supervised work experience in various fields of IT. Re¼quires the submission of a written report. Number of credits awarded is dependent on number of hours worked during the semester, with a maximum of 3 credits in a semester. Students are limited to a total of 6 internship credits. Students find internships through their own initiative, the Career Development Office, and occasionally the Management & IT Department.
Typically offered: On Demand

IT-4995 Independent Study in Information Technology (1-3 Credits)
Individual research and study with the approval of the Management & IT Department. If qualified, an independent study can be used to substitute for an elective in IT. Projects must be scheduled for completion within the semester. Prerequisite: prior application and approval of Chairperson and faculty mentor required.
Typically offered: On Demand

IT-4998 Capstone Project (4 Credits)
Requisite(s): Senior standing,IT-2201,IT-3310,IT-3101,ENT-1001
This course provides students with an opportunity to apply their theoretical knowledge to a practical problem in the area of information systems. This project is a general investigation and report within the subject area of information systems. The student group can develop a mock business demonstrating how information technology may be integrated into the operations of that company. Students will be applying the entrepreneurial mindset and explore the commercialization of their project. Students work under the supervision of the course director.
Typically offered: Fall Only

IT-6001 Information Systems for Managers (3 Credits)
Graduate students only. This course will provide an overview of information systems concepts. Students will explore how information systsm can give organizations a competitive advantage while providing managers with tools for planning, decision making, and effective controls. Students will explore the value of information systems for transforming business operations through review and analysis of literature and case studies.
Typically offered: All Sessions

IT-6002 Systems Analysis and Design (3 Credits)
Requisite(s): IT-6001
Graduate students only. This course introduces the principles of systems analysis and design. Students explore the fundamental knowledge of how computer systems are analyzed and designed through different methodologies. Many concepts and applications are taught with practical examples. The key topics of this course include fundamentals of systems analysis and design, different phases of analysis and design, analysis requirements, analysis process, design essentials, quality assurance, and implementation. Students will complete practical lab assignments as well as quizzes and research papers.
Typically offered: All Sessions

IT-6003 Computer Networks and Security (3 Credits)
Requisite(s): IT-6001
Graduate students only. This course introduces the principles and applications of computer networks and security. Students explore the fundamental knowledge of computer networks and how cyber security is essential to protect computer networks. Many concepts and applications are taught with practical examples. The key topics of this course include Introduction to Computer Networks, Applications, Link and Physical Layers, Network Layers, Transport Layer, Introduction to Cyber Security, and Cyber Threats and Defenses. Students will complete practical lab assignments as well as quizzes and research papers.
Typically offered: All Sessions

IT-6004 Database Management (3 Credits)
Requisite(s): IT-6001
Graduate students only. This course focuses on the design, implementation, and management of databases. Topics include strategic database planning, entity-relationship modeling, theory of the relational model, data normalization, distrubted database processing, and the SQL language. Emphasizes database support for global business operations and explores ethical issues and concerns relating to modern database and data warehousing techniques. Students will complete a number of practical lab assignments as well quizzes and research papers.
Typically offered: All Sessions

IT-6005 Operating Systems (3 Credits)
Requisite(s): IT-6001
Graduate students only. This course will cover topics from the broad field of operating systems, including basic operating system structure, file systems and storage servers, memory management techniques, process scheduling and resource management, threads, distributed and peer-to-peer systems, and security. The courses will examine influential historical systems and important current efforts, extracting lessons both on how to build systems as well as how to evaluate operating systems. Students will complete a number of practical lab assignments as well as quizzes and research papers.
Typically offered: All Sessions

Management

MGT-6001 Organization and Strategy (3 Credits)
Graduate students only. This course will provide an overview of organizational theory and business strategy in the context of modern organizations. Students will develop an understanding of organizations as dynamic, evolving systems through review and analysis of the literature, case studies, and class discussions.
Typically offered: All Sessions

MGT-6002 Special Topics in Organizational Mgmt (3 Credits)
Requisite(s): MGT-6001
Graduate students only. This course will explore specific, identified topics in organizational management. The subject matter will be chosen by the instructor prior to registration, with the approval of the department chair. Topics may include leadership, strategic planning, project management, strategic human resources management, or other contemporary concerns in organizational management.
Typically offered: Spring Only

MGT-6003 Org'l Development and Change Mgmt (3 Credits)
Requisite(s): MGT-6001
Graduate students only. This course will explore the issues, theories and methods associated with organizational development and change management. Topics will include organizational culture, intervention strategies, and overcoming resistance to change. Students will focus on building management skills to aid organizations in successfully adapting to uncertainty and implementing new practices.
Typically offered: Summer Only

MGT-6100 Graduate Workshop (0 Credits)
Open to graduate students in M.S. in Management only. This course will explore contemporary topics in management and provide an opportunity for graduate students to interact with each other through a combination of lecture and group activities. Topics may include leadership, strategic planning, human resources management, business communications, or current issues in organizational management. Students must enroll in this course in each term to continue in the M.S. in Management.
Typically offered: All Sessions

MGT-6101 Graduate Seminar in Management (0 Credits)
Open to graduate students in M.S. in Management only. This course will explore contemporary topics in management and provide an opportunity for graduate students to interact with each other through a combination of lecture and group activities. Topics may include leadership, strategic planning, human resources management, business communications, or current issues in organizational management. Students must enroll in this course in each term to continue in the M.S. in Management.
Typically offered: All Sessions

MGT-6900 Research in Management (3 Credits)
Requisite(s): Take 3 graduate level credits.,Take 3 graduate level credits with a minimum GPA of 3.0.,Department Chair approval.
A supervised, guided research project for students in the M.S. in Management program. Includes participation in faculty-led activities to discuss and analyze communication, ethical, management, and organizational behavior in health care administration, digital marketing, project management, or social innovation and entrepreneurship. May be taken for two semesters (up to 6 credits) with the approval of program director or department chair.
Typically offered: As Needed

MGT-6990 Supervised Externship (1-3 Credits)
Must be a full-time student in M.S. in Management who has completed at least 9 credits of graduate coursework with 3.0 average and department approval.A supervised and observed volunteer, internship,externship, or work experience for full-time students in the M.S. in Management program. Includes participation in faculty-led activities to discuss and analyze communication, ethical, management, and organizational behavior at host site.
Typically offered: All Sessions

MGT-6998 Capstone Project (3 Credits)
Requisite(s): Student must have completed a minimum of 27 credits in,graduate level courses. Students should register for,MGT-6998 in their final semester.,MGT-6001 MKT-6001 IT-6001 BAN-6001 FIN-6001 Graduate students only. This course will be a culminating experience for the MS in Management program. The aim of the capstone is to assess students' ability to synthesize and integrate the knowledge and skills they have developed throughout their coursework rather than to introduce new concepts. Working in a team, students will consult with a client to address a real business problem by preparing a business and marketing plan while addressing accounting, financial, and legal issues and technology considerations.
Typically offered: Fall Only

Nurse
Obando
Oliva
Ouellette
Paguaga
Phillips-Almeida
Robertson
Rousseau
Tamparo
Tully
Versland
Weisman
Westcott

Faculty Chairperson

Keith Hoell

Professors

Anderson
Klein

Associate Professors

Pashkevich
Segares

Assistant Professors

Hoell
Jordan
Lichoro
Okumakpeyi
Schroeder
Vazzana
Xia

Professor Emeritus

Gomori

Adjuncts

Ahmed
Amachki
Bergen
Blount
Brown
Cellini
Charandabi
Coleman
D'Esposito
Diodato
Edington
Giardino
Izadpanahjahromi
Jean-Toussaint
Jordan
Khan
MacIntyre
Makabali
McCabe
Miller-Greaves