

COURSE DESCRIPTIONS

Course credits are shown in parenthesis, e.g., (3 credits), following the course title. Credits are based on class contact (lecture) hours unless otherwise stated. Lecture courses comprise 1 credit for every 15 hours of face-to-face, 1 credit for every 30 hours of laboratory, and 1 credit for every 45 hours of practicum/internship. All courses are lecture courses unless otherwise indicated.

ACCT 101: Principles of Accounting (3)

Prerequisite: None

This course is an introduction to accounting concepts and procedures for an organization. The emphasis is on the accounting cycle as well as the recording, summarizing, and interpretation of accounting information.

ACCT 305: Accounting Information Systems (3)

Prerequisite: ACCT 101 Principles of Financial Accounting

This course focuses on the design and analysis of automated accounting systems for businesses. It includes the examination of payroll, receivables and payables, charts of accounts, and accounting reports, as well as internal control and security issues.

BIOL 102: Introduction to Biology (3)

Prerequisite: None

This course will provide you with fundamental knowledge of the core concepts of biology and their applications to everyday life. Biology, the science of life, concentrates on the structure, function, distribution, adaptation, interactions, origins, and evolution of living organisms. The core concepts discussed in this course are organized into four core areas: cells, genes, evolution, and ecology. We approach this course by (1) engaging students by relating biology content to their lives and the greater society; (2) helping students understand the process of science by teaching critical thinking skills that can be used in everyday life; and (3) demonstrating how biology's broader themes – such as evolution and the relationship of structure to function – serve to unify the entire subject.

BUSS 110: Introduction to Business (3)

Prerequisite: None

This course is an introduction to the functions of business and management strategies in the areas of marketing, human resources, finance, and technology. Real-world cases are discussed to highlight the business practices of organizations that students can relate to. Course activities involve students in writing, investigating, problem-solving, demonstrating, and reporting. The emphasis is on the basic principles and practices of businesses. This course is interactive and includes hands-on activities and group discussions.

BUSS 120: Principles of Management (3)

Prerequisite: None

This course helps students examine the theory, techniques, and applications of management systems. Planning, organizing, leading, and controlling are issues addressed. Topics include environmental influences, organization design and structure, motivation, total quality management, ethics, production, and international Management.

BUSS 130: Principles of Marketing (3)

Prerequisite: None

This course helps students understand and appreciate the marketing concepts; how to identify, understand and satisfy the needs of customers and markets; identify the marketing mix components; explain the environmental factors which influence consumer and organizational decision-making processes; outline a marketing plan; and interpret marketing research data to forecast industry trends and meet customer demands.

BUSS 155: Seminar I (1)

Prerequisite: None

This course introduces personal skills, talents, abilities, study habits, research methodology, and other soft skills to help students succeed in their undergraduate studies. Students will also be assisted in reviewing the fundamental courses they have taken so far to determine which specialization they are deciding to choose in their degree program.

BUSS 200: Legal Aspect of Business (3)

Prerequisite: None

The legal system and business policies and practices are closely related. In order to succeed in business, it is essential to understand the application of the legal environment. This course is intended to introduce students to a broad range of legal issues that impact business, including the sources of United States law and the key areas of law relevant to business. The course teaches students to think broadly about business and the rule of law.

BUSS 220: Business Ethics and Corporate Social Responsibility (3)

Prerequisite: None

This course helps students understand business philosophy, which stresses not engaging in activities that cause environmental pollution and / or exhausting finite world resources; the moral principles and standards that guide behavior in a business environment; focusing on wider social issues rather than merely focusing on the company's profit margins and exploring the ethical considerations that guide and inform business decisions and strategies. Students will also learn the concept of Corporate Social Responsibility (CSR) to understand and apply ethics from social, economic, and environmental perspectives.

BUSS 242: Principles of Finance (3)

Prerequisite: ECON 101 and ACCT 101

This course provides an introductory survey of the field of finance. This course examines the agents, instruments, and institutions that make up the financial system of the modern economy, such as bonds, the stock market, derivatives, and the money market. Additionally, common concepts and tools of financial analysis are introduced, including present discounted value, option value, and the efficient markets hypothesis. The recent application of psychology to financial markets (called behavioral finance) is also discussed. Students are equipped with the background and tools they need to make financial decisions with greater skill and confidence. We will learn how insights from academic finance can inform and improve students' individual investing decisions.

BUSS 280: Introduction to Statistics (3)

Prerequisite: None

BUSS 280 is an introductory course in statistics designed to provide students with the basic concepts of data analysis and statistical computing. Topics discussed include displaying and describing data, the normal curve, regression, probability, statistical inference, confidence intervals, and hypothesis tests with applications in the real world. The main objective is to provide students with pragmatic tools for assessing statistical claims and conducting statistical analyses.

BUSS 290: Introduction to Business Analytics (3)

Prerequisite: BUSS 280

In today's competitive world, quantitative analysis is an essential tool for business decision-making. The objective of this course is to introduce students to basic statistical and mathematical methods and models for solving business problems and making decisions. The course will provide students with hands-on skills in the application of various data analytical tools.

BUSS 300: Organizational Theory & HR Management (3)

Prerequisite: None

This course will introduce students to individual, group, and organizational issues that affect business organizations and, more importantly, focus on issues that influence job performance and organizational commitment. Topics such as motivation, organizational justice, individual differences, team dynamics, leadership, and organizational culture will be discussed.

BUSS 306: Communities of Practice (3)

Prerequisite: None

A Community of Practice (CoP) is a collection of individuals who share a deep passion and drive for a particular problem, topic, or concern to combine and further their collective knowledge to cultivate and foster their work. While CoPs are specifically not organizations, the need for businesses and organizations to further their internal learning and development is clearly a benefit to the organization. This course examines CoPs within organizational contexts as a means of helping the institution to become stronger as a learning organization. Students will develop a project over the semester analyzing the community/communities of practice within an organization with a focus on improving the organization's capacities.

BUSS 320: Introduction to Project Management (3)

Prerequisite: None

This course introduces the fundamental concepts and principles of project management practice from the standpoint of the manager, who must organize, plan, implement, and control non-routine activities to achieve schedule, budget, and performance objectives. Topics include project life cycles, project organization, project charters, work breakdown structures, responsibility matrixes, as well as basic planning, budgeting and scheduling systems. Planning and control methods such as PERT/CPM, Gantt charts, and the Earned Value management system are also covered.

BUSS 325: Project Management Systems (3)

Prerequisite: None

Students who enroll in this course must possess and demonstrate appreciable pre-knowledge of the fundamental concepts, and principles of project management. This course therefore proceeds with intermediate levels of work generally conducted in the practice of project management. Students will explore the strategic decision-making processes for the creation of a

project charter or work order. All lectures, discussions, and student assignments shall be directed to reinforce how a project is actually conducted and applied to create the value proposition desired by organizational stakeholders.

BUSS 327: Leading Project Management Operations (3)

Prerequisite: None

Students who enroll in this course must possess and demonstrate appreciable pre-knowledge of the fundamental concepts and principles of project management. This course proceeds with intermediate levels of work generally conducted in the practice of project management. Students will explore the strategic decision-making processes for the creation of a project charter or work order. All lectures, discussions, and student assignments shall be directed to reinforce how a project is actually conducted and applied to create the value proposition desired by organizational stakeholders.

BUSS 328: Foundations of Data and Information Management (3)

Prerequisite: BUSS 290

The course provides students with foundations of key concepts for establishing a comprehensive data management system and strategy for a large organization, ensuring that its operational and financial needs are efficiently, effectively, and securely addressed. The course will emphasize real-case scenarios companies face when addressing global operational and analytical data challenges. This course will also address current trends in managing business structured data as organizations move to cloud-based computing services.

BUSS 329: Organizational Behavior (3)

Prerequisite: None

This course helps students understand and appreciate human behavior in organizational settings, interface between human behavior and organization, study the ways people act within groups, and apply them to make businesses operate more effectively. This course focuses on improving productivity, quality, and assisting managers in designing more positive organizations.

BUSS 333: Managing Behavior and Organizations (3)

Prerequisite: None

This course focuses on how people behave in organizations and groups and how managers use concepts and principles of organizational behavior for effective management. Topics include leadership, motivation, organizational culture, and roles within groups.

BUSS 338: Business Data Visualization (3)

Prerequisite: BUSS 290

In this course, students will be able to design and create data visualization by using available or their own data derived from primary or secondary sources. The learning process includes data collection, organizing, modeling, and creating various forms of data visualizations, graphics, and dashboards. Students will also learn, evaluate and demonstrate the effectiveness of visualization in business decisions. Students will also be challenged to think critically by reading current and past published papers and real business visualization works. Students will create their own data visualizations and presentations.

BUSS 342: Human Resource Management (3)

Prerequisite: None

This course examines various principles, best practices, and current challenges businesses are facing related to attracting, selecting, motivating, and keeping the most talented organizational members in today's competitive environment. The course focuses on human resource management strategy, organizational staffing, employee and labor relations, and organizational safety and security. Emphasizes current legal considerations and issues.

BUSS 349: Internship in Organizational Development (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course helps students understand the key concepts of organizational development theories, such as organizational climate, organizational culture, and organizational strategies.

BUSS 351: Business Development (3)

Prerequisite: BUSS 110

This course helps students understand the ways and means of developing business. It encompasses understanding the economic reality, explaining current trends and issues in today's environment, and the starting point for entrepreneurial activities.

BUSS 362: Business Consulting (3)

Prerequisite: BUSS 110

This course is designed to provide an initial overview of the consulting profession with a subsequent emphasis on organization consulting issues. Efforts will be placed on developing proficiencies in a range of skills required to practice consulting. The course is relevant to those specifically interested in consulting careers and whose current or future jobs involve staff consulting or line management using consultants.

BUSS 364: Negotiation Essentials (3)

Prerequisite: None

This course creatively utilizes cases, role plays, and scenarios to help build skills and understanding of negotiations and organizational conflict. Students will work individually and in team negotiations, engaging in discussions and accessing resources to enhance their ability to navigate complex situations. Students will experience active learning through case analyses and readings, as well as experiencing real-world negotiations from a wide range of contexts. These scenarios range from simple two-party negotiations to complex multi-party negotiations and will support the development of skills, strategies, and tactics that are applicable in work environments as well as in all facets of life. Students will learn to communicate more effectively, recognize and develop alternatives, overcome barriers, and utilize existing strengths in each class.

BUSS 365: Entrepreneurial Ventures (3)

Prerequisite: None

In this course, students will learn practical concepts, entrepreneurial insights, and comprehensive resources that are essential both now and in the future. It also provides the background one needs to create, manage and analyze a business plan.

BUSS 366: Entrepreneurship and Innovation (3)

Prerequisite: None

This course helps students understand the practices and processes that are used to manage innovation effectively; understand innovation issues from the entrepreneur and manager's perspective; understand the management of innovation from a strategic perspective and the relationship between processes and structures for innovation in firms, the strategies for exploitation and the environment in which these must be designed e.g., competition, rate of technological change, sources of innovation.

BUSS 370: Business Change Management (3)

Prerequisite: None

This course offers an opportunity to discuss and apply principles, tools, and methods to successfully implement growth and sustainability for an organization. The objective of this course is to deliver appropriate knowledge on the process of change management. Topics discussed in this course will include strategies to design, implement, communicate and sustain change; techniques for mapping and assessing when and where change is needed in an organization; organizational development techniques; as well as barriers and enablers to fostering an environment conducive to change and innovation.

BUSS 371: Sustainable Business Innovation and Management (3)

Prerequisite: None

The purpose of this course is to provide students with practical information on the growing frontier of innovation and entrepreneurial activity at the nexus of business and natural systems. The term sustainable business refers to competitively advantageous strategies and practices that firms adopt to grow revenues, cut costs, improve market share, enhance brands, and redesign products and processes to reduce or eliminate adverse environmental and health impacts. Students will study the trends and science driving the growing demand for clean technology and lifecycle product designs. Students will look at the drivers of corporate innovation, strategic shifts, and new markets; learn skills to identify market opportunities; and understand the tools, concepts, and frameworks used by companies currently pursuing sustainable business opportunities.

BUSS 373: Change Management and Leadership (3)

Prerequisite: None

This course helps students gain practical, real-world understandings of several dimensions of leadership, such as the nature of new realities, how one can improve insights into them, and how one can identify and overcome resistance to change. As the world changes, our leadership styles and abilities must also adapt and change. In this course, we will examine the change environment and why organizations often fail at implementing change because understanding the pathologies of change will provide the foundation that we will build upon to learn about the strategies and forces we need to understand to help us drive successful change.

BUSS 374: Entrepreneurial Marketing (3)

Prerequisite: None

In this course, students will be introduced to and trained in various entrepreneurial marketing concepts and applications that will increase the likelihood of successful business ventures.

BUSS 375: Corporate Entrepreneurship (3)

Prerequisite: None

In this course, students will learn how to develop and grow an organization by designing the culture, structure, strategies, and policies that encourage & support internal entrepreneurial ventures.

BUSS 376: Social Capital Innovations (3)

Prerequisite: None

This course helps students understand the theories of social capital, social structure, and societal transformation. It also sheds light on the impact of social capital on investment opportunities and growth.

BUSS 377: Strategic Management (3)

Prerequisite: None

The course focuses on the analyses, decisions, and actions an organization undertakes in order to gain and maintain a competitive advantage. The extensive use of case studies focuses students on diagnosing problems and opportunities, developing alternative courses of action, and implementing organizational leadership and strategic management.

BUSS 378: Asset Management and Organization (3)

Prerequisite: None

This course helps students understand principles and analytics of asset management. Students interested in a career in asset, portfolio, private wealth, endowment, or pension fund management will find this course very useful. A fundamental understanding of the issues in asset management will also be helpful in other areas of finance, such as investment banking, insurance, accounting, and personal finance.

BUSS 379: Learning Organizations (3)

Prerequisite: None

This course helps students understand learning organizations, its importance, and the emerging need for learning organizations.

BUSS 380: Environmental Ethics and Compliance (3)

Prerequisite: None

This course explores the legal and regulatory structure involving the protection of the environment. Successful completion of this course is a crucial element in achieving basic competency in environmental science, policy, and planning. By its nature, the environmental compliance field is based on jargon, specialized definitions, seemingly illogical structures, and rote memorization. Nevertheless, understanding the process by which to find, interpret, and apply regulations will provide you with valuable professional skills. In this course, students will go beyond mere factual recall of definitions and regulations. Students are expected to understand the requirements sufficiently to apply them to specific applicable-based circumstances.

BUSS 381: Environmental Politics and Policy (3)

Prerequisite: None

Environmental problems are now at the forefront of political discussions. This course examines the law, politics, and policy of global environmental issues, including energy, climate, biodiversity, food, and water. The course aims to provide a broad view of the key concepts, actors, and issues in global environmental politics. It demonstrates the complexities of both the nature of the problems and the solutions. The proliferation of global institutions and international actors and the absence of central enforcement mechanisms are hallmarks of addressing environmental problems. We consider the roles of government, the private sector, NGOs, the community and consumers and other actors in environmental governance. At the end of the program, students give an oral presentation and submit a medium-length paper communicating their research findings and analysis.

BUSS 383: Sustainable Energy Systems (3)

Prerequisite: None

This course examines the production and consumption of energy from a systems perspective. Sustainability is examined by studying global and regional environmental impacts, economics, energy efficiency, consumption patterns, and energy policy. First, the physics of energy, and energy accounting methods are introduced. Next, the current energy system that encompasses resource extraction, conversion processes, and end-uses is covered. Responses to current challenges such as declining fossil fuels and climate change are then explored: unconventional fossil fuels, carbon sequestration, emerging technologies (e.g., renewable sources: biomass, wind, and photovoltaics; fuel cells), and end-use efficiency and conservation.

BUSS 385: Seminar in Technological Change and Productivity (3)

Prerequisite: None

This seminar course seeks to deepen the understanding of the impact of rapid technological change on sustainable development, especially the consequences for the central principle of the 2030 Agenda of “leaving no one behind” and the implications for the science, technology, and innovation community. It allows students the opportunity to look at the role of science, technology, and innovation (STI) policy vis-à-vis sustainability. It helps identify strategies, policies, and immediate actions to use science, technology, and innovation to empower people, especially those who are vulnerable, and ensure inclusiveness and equality.

BUSS 387: Policy Making in a Global Context (3)

Prerequisite: None

This course examines the enduring and changing nature of governance from both theoretical and practical perspectives. It employs classic texts and extensive case studies to demonstrate how policymakers seek to formulate and implement public policy effectively and legitimately in the face of domestic skepticism, evolving state structures, and a fast-shifting global context to serve the public good. How does the modern state try to fulfill the traditional functions of the state, and what are some of the challenges to its traditional roles? How can a state governance best work with and mobilize civil society, non-governmental organizations, and institutions of global governance? In short, what does it mean to govern well in the 21st century- and how does that translate into practical advice for policymakers.

BUSS 388: International Economics and Politics (3)

Prerequisite: None

This course introduces international economics and politics to understand how the world works politically and economically and aims to teach comprehensive international relations. The course explains the interactions between markets and politics, the influence of markets on politics, and the influence of policy on markets. It helps analyze contemporary issues from both political and economic points of view. By the end of the course, students should have a fundamental understanding of the major theoretical approaches and key conceptual and substantive issues. The course covers popular topics such as territorial disputes, democracy, economic growth, national security, the politics of trade, monetary relations, finance, economic development, and globalization in international economics and politics.

BUSS 390: Seminar II (1)

Prerequisite: BUSS 155

This course provides an opportunity for students to utilize their academic experience either through a research paper or a project with their main focus on continuing their graduate studies or applying their skills in real-world cases through employment. Students will present their research findings in a seminar.

BUSS 400: Business Decisions and Modeling (3)

Prerequisite: BUSS 350

In this course, students will learn how to evaluate data in context, develop decision models, interpret data trends, and receive an overview of decision support management techniques such as predictive modeling, risk assessment and optimization, and analytics algorithms, which will set the stage for more advanced study in subsequent courses.

BUSS 410: Contracts, Procurement, & Supply Chain Management Systems (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 510.

This course examines processes through which goods and services are acquired in the project management environment. Topics include contract and procurement strategies, legal issues, contract pricing alternatives, technical, management, and commercial requirements, RFP development, source selection, invitations to bid, bid evaluation, risk assessment, and contract negotiation and administration. By the end of the course, students will have a broad overview and understanding of the procurement cycle and how it relates to contracts, projects, and management.

BUSS 415: Risk Management in Project Management (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 514.

This course exposes students to a variety of ways to identify, analyze, and mitigate the full range of project risks. The course also explores the six risk management processes as outlined in the PMBOK Guide: Risk Management Planning, Risk Identification, Qualitative Risk Analysis, Quantitative Risk Analysis, Risk Response Planning, and Risk Monitoring & Controlling. Using a practitioner approach, students learn risk management techniques by applying them to problems raised in case studies.

BUSS 418: Merger and Acquisitions (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 519.

The goal of this course is to familiarize students with the analytical and real-world tools necessary for effective evaluation and implementation of Merger and Acquisition (M&A) process and implementation.

BUSS 419: Venture Capital (3)

Prerequisite: BUSS 362

Special Course Notes: This course is offered as an over/under with BUSS 520.

This course helps students understand the entire venture capital cycle; that is to say; the financial and operational activities of venture capital; assessing opportunities; valuing ventures; negotiating and structuring investments; managing investments, and exiting. Students will gain skills, confidence, and strategies to maximize venture capitalists' investment return in emerging businesses and minimize potential financial risks.

BUSS 426: Engaging Consumers in a Digital World (3)

Prerequisite: BUSS 130

In this course, students will learn how businesses examine how organizations capitalize on social media and consumer-to-consumer interactions to support their marketing efforts. Students will gain the theoretical knowledge needed to create engaging content for platforms such as Facebook, Instagram, Twitter, and Snapchat, as well as the ability to identify influencers, deliver content to a targeted audience, and measure the success of the efforts.

BUSS 428: Internship in Project Management (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course provides major field experience for the student candidate of project management education. As a practicum, the goal of this course is to provide an opportunity for the student to be exposed to project management work at the ground level. Presumably, the student comes to this course having thoroughly understood all pertinent information of the knowledge domain, the project management framework, processes, theories, techniques, etc., this course therefore allows the student to observe, participate in, and test out how a project work is initiated, planned, implemented, validated for quality and performance, and eventually closed.

BUSS 429: Contemporary Issues in Business Process Optimization (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 529.

This course helps students understand a process-oriented view of the flow of materials, information, products, and services through and across organizational functions. It also helps to enhance their knowledge of how to carefully analyze, document, and continuously assess the efficiency and effectiveness of business processes to minimize cost and maximize value creation.

BUSS 431: Leading Organizations with Positive Psychology (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 444.

In this course, students will learn the professional leadership qualities that deliver personal, interpersonal, and organizational success. They will also learn positive subjective experiences and traits in the workplace and positive organizations, and its application to improve the effectiveness and quality of life in organizations.

BUSS 432: Organizational Performance Measure (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 532.

This course focuses on the fundamentals of organization performance measurement. Students in this course will gain knowledge in how to select appropriate measures, implement a performance management system, and use performance measures in managing excellence in an organization. In addition, the course will highlight the need for leadership and management acumen to ensure success in achieving meaningful, significant, and lasting results.

BUSS 433: Emergent Roles of Project Management in Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 533.

This course helps students understand the method of using emergence to elicit local knowledge and integrating that knowledge to manage projects more effectively. It also helps students appreciate and value planning and implementation of a project interface management program.

BUSS 435: Management and Ethical Leadership (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 535.

The purpose of this course is for students to acquire knowledge about leadership to lead and follow more effectively and ethically. The course will also assist students with the journey of self-discovery, a journey that lasts a lifetime if you choose to lead. Students will learn new ideas about leadership, strengthen important leadership skills, and discover the hidden potential for leadership. Further, students will learn the value of good followership and its importance in the complicated interaction between leaders and followers. There are many more opportunities to be a follower than a leader, especially early in life. The course also explores how to recognize bad leaders and what to do or not to do as an exemplary follower. Students are encouraged to acquire greater sensitivity to the ethical dimensions of leadership. Learning to recognize the importance of questions of purpose and to understand leadership as a form of service to others is an important insight and a balance to one's personal ambitions.

BUSS 437: Talent Acquisition and Development (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 537.

In-depth exploration of employee skills, motivation, talent acquisition and development, with emphasis on organizational effectiveness. The course will also explore how the pace and volume of recent change can bring increased attention to the ways that human resource development (HRD) activities can be applied; globalization a growing base of theory, research, and practical experience to support HRD efforts.

BUSS 439: Managing in a Digital World (3)

Prerequisite: None

This course helps students understand the new digital economy; economic value of digital economy; manage to deliver in the digital world; quantitative reasoning; information technology and SMAC (social media, mobile, analytics and cloud computing) revolution. This course also helps students to apply the knowledge and run a business better in today's environment and transform the nature of business in the future.

BUSS 440: Business Intelligence and Predictive Analysis (3)

Prerequisite: None

This course provides students with key methods of predictive analytics and advanced BI concepts for business decision-making contexts. Using real business cases and data, the course illustrates the application and interpretation of these methods. The course will cover R Programming, trends in predictive analytics, and application programs that can be deployed within the business enterprise.

BUSS 445: Human Resource Analytics (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 545.

In this course, students will be introduced to the importance of analytics in HR. Students will learn and apply an analytic and process model using Excel and Power BI to drive the most important data methods and techniques for organizing, analyzing, and presenting for business decisions.

BUSS 447: Legal and Regulatory Environment of Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 547.

In this course, students will be introduced to the legal and regulatory environment of business, emphasizing why legal duties are placed on the business community, and how managers should appropriately respond to them. The course covers legal institutions, constitutional law, common law, and public law.

BUSS 448: Marketing Analytics (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 548.

In this course, students will study various tools for generating marketing insights from data in market segmentation, targeting and positioning, satisfaction management, customer lifetime analysis, and customer choice, as well as product and price decisions using conjoint analysis and search analytics. This is a hands-on course based on the Marketing Engineering (Enginius) approach and Excel software that will be applied to actual business situations. Students will develop a market analytics project by collecting and analyzing primary or secondary data.

BUSS 449: Contemporary Issues in Organizational Development (3)

Prerequisite: Minimum of 90 credits

Special Course Notes: This course is offered as an over/under with BUSS 544.

This course will introduce students to new practices and issues emerging in organizational development (OD) and how those changes contribute to the effective practice of OD. Students will read and discuss various case studies to practically understand various contemporary OD business-related issues.

BUSS 450: Research and Analytical Skills (3)

Prerequisite: None

This course helps students understand and apply research and analytical skills in collecting, analyzing, and interpreting data in order to make sound business decisions. Students will gain insight relative to quantitative, qualitative, and mixed model research methods.

BUSS 451: Development and Globalization (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 550.

This course examines processes of globalization and development by highlighting various debates over the positive and negative impact of globalization on political, economic, and social development. Throughout the semester, we will grapple with a number of questions. First, who are the winners and losers of globalization? Who shapes the dominant values of and rationale for development and globalization? We will consider these 'who' questions in terms of individual, society, and country levels. Second, how do globalization and development affect each other? Does globalization promote development? If so, which countries are beneficiaries in what way? Not only will we explore the approaches to development and their outcomes, but we will also talk about how this has impacted the environment and global health. These discussions will be accompanied by comparative perspectives on the development experiences of countries in different regions of the world. In order to produce more comprehensive and compelling explanations, we will have to go up and down levels of aggregation in our readings, class discussion, and debates, from the local to the global and back again.

BUSS 453: Economics of Development (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 553.

This course covers macro and micro development models and issues. The course covers the larger array of development theories, models and the different aspects of economic development. The course explores topics related to inequality, development models, and the different dimensions related to economic development like institutions, trade, education, agriculture, and international aid. By doing so, the course indicates how development efforts bring adequate nutrition, health services, and education.

BUSS 457: International Perspectives in Substantiable Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 557.

Sustainability in international business is more than simply adopting sustainable practices--it has the potential to help companies gain a competitive advantage. With the growing globalization of social and economic activities worldwide, environmentalism has become a fundamental component of business practices. Many international companies now out-compete their business rivals by implementing robust environmental stewardship and corporate social responsibility programs, engaging stakeholders by making these efforts measurable and visible. This course examines the global business environment in the context of sustainability and explores the challenges and opportunities that the new movement toward sustainability offers multinational enterprises and the countries in which they do business.

BUSS 459: Internship in Sustainable Business (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course provides students an opportunity to gain knowledge and skills from a planned work experience in the student's chosen career field. The course outcome is designed in cooperation with the student, the supervisor, and the internship office. Internship placements are directly related to the student's program of study and provide learning experiences not available in the classroom setting. Internships provide entry-level, career-related experience and workplace competencies that employers value when hiring new employees. Internships may also be used as an opportunity to explore career fields.

BUSS 461: Sustainable Business Metrics and Reporting (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 560.

The course will give students a comprehensive understanding of sustainability in organizations from an accounting perspective. It walks students through the steps of performing a sustainability assessment and aims to develop them into financial analysts. By the end of the course, students will be able to analyze, create, and audit sustainability reports.

BUSS 462: Product Design and Development (3)

Prerequisite: BUSS 130

Special Course Notes: This course is offered as an over/under with BUSS 562.

In this course, students will learn the theories, technologies, and practical applications of product design, development, and management for long-term success and survival in an intensively competitive global market.

BUSS 463: Contemporary Issues in Sustainable Business (3)

Prerequisite: Minimum of 90 credits

Special Course Notes: This course is offered as an over/under with BUSS 563.

This course introduces the students to current thinking and research on contemporary issues in business and provides an opportunity to develop a foundation for their future major by researching a contemporary business issue in a major business sector. Students will be expected to read, understand, and evaluate research and analysis on this issue and demonstrate an understanding of how research and analysis affect proposed solutions or responses to the issue.

BUSS 465: Social Media Marketing (3)

Prerequisite: BUSS 130

Special Course Notes: This course is offered as an over/under with BUSS 565.

In this course, students will be introduced and trained about the most effective techniques for identifying targeted marketing on social media platforms, with emphasis on creating customer bases that represent well-developed online market segments for a company.

BUSS 478: Business Risk Analysis and Optimization (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 578.

This course teaches students practical sustainable business consulting practices. Students will learn business practices geared towards improving the communities in which they operate. It will also expose them to consultancy work in different areas of business.

BUSS 479: Data Prediction and Business Optimization (3)

Prerequisite: None

This course provides students with analytical methods for predicting outcomes and future trends from existing data to help discover new relationships; to evaluate outcomes for business optimization (e.g., revenues, profits, market share, probability of making a sale, probability of losing a client, etc.) based on other historical data predictors (e.g., marketing expenditures, quality assurance investments, sales force size, etc.).

BUSS 485: International Strategy (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 585.

The course focuses on the analyses, decisions, and actions that an organization undertakes to gain and maintain a competitive advantage. The extensive use of case studies focuses students on the diagnosis of problems and opportunities as well as the development of alternative courses of action and implementing organizational leadership and strategic management.

BUSS 486: Dilemmas and Debates in Entrepreneurship (3)

Prerequisite: None

In this course, students will learn the concept of a dilemma: an argument presenting two or more equally conclusive alternatives and vigorous debate and ultimately solutions.

BUSS 487/587: Contemporary Issues in Applying Business Analytics (3)

Prerequisite: Minimum of 90 credits

Special Course Notes: This course is offered as an over/under with BUSS 587.

This course will introduce students to new changes, new practices, and issues emerging in Business Analytics (BA), as well as the way those changes contribute to the effective practice of BA. Students will read and discuss various case studies to practically understand contemporary BA issues.

BUSS 488: Internship in Business Analytics (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course provides students with an opportunity to gain knowledge and skills from planned work experience in the Data Analytics specialization. In this course, students will be exposed to a real-life business problem and the application of theoretical and quantitative analytical skills to recommend solutions to decision-makers. The entire course outcome is designed in cooperation with the student, the professor, the program chair, and the university's career services department. Internships provide entry-level, career-related experience, as well as marketable skills and competencies that are highly demanded by future employers.

BUSS 490: Consulting Project and Seminar (4)

Prerequisite: None

This course provides students with a hands-on understanding and experience related to their degree. The objective is to let students access information that will help them complete a semester-wide individual project that produces practical skills and concepts used throughout their program. Students develop their projects under the direct supervision of the faculty advisor of the course. Students are required to attend as many meetings/seminars as needed as specified by the faculty advisor.

BUSS 499/599: Contemporary Issues in Entrepreneurship (3)

Prerequisite: Minimum of 90 credits

In this course, students will learn the theory of entrepreneurship and its practical implementation and contemporary issues in entrepreneurship.

BUSS 501: Descriptive Analysis and Data Visualization (3)

Prerequisite: None

Every day, there is a large amount of data produced. From this large volume of data, we can extract some interesting insights that would help decision-makers make some important decisions. This course covers topics including the genomics of massive data, statistical analysis, concepts, and methods.

BUSS 502: Business Decision and Predictive Analysis (3)

Prerequisite: None

This course is intended for business students with the goal of providing key methods of predictive analytics and advanced BI concepts, helping business decision-making using methods of predictive analytics, and demonstrating the application and interpretation of these methods. The course will use R/python Programming languages to understand the trends in predictive analytics that can be deployed within the business enterprise.

BUSS 503: Business Intelligence Tools and Techniques (3)

Prerequisite: None

This course provides a conceptual and practical overview of analytical tools, techniques, and practices used to support data-driven decision-making in an organization. It is designed to address real business analytical problems and equips learners with practical skills.

BUSS 504: Advanced Business Analytics (3)

Prerequisite: BUSS 503

The amount of data generated from different sources is becoming important to generate some meaningful insights. In this course, advanced level descriptive and predictive models are used to analyze business problems by simulating big data. Statistical analysis and visualizations methods are also applied to undertake supervised and unsupervised learning of the analytical models. The value derived from these advanced models will fundamentally unlock the hidden information gaps existing in the economic choices of consumers and firms.

BUSS 506: Leadership in Organization (3)

Prerequisite: None

This course examines leadership in organizations based on the research literature, where selected approaches to leadership are discussed and assessed on how they can be used to improve leadership in real situations.

BUSS 507: Leadership in Development (3)

Prerequisite: None

This course examines the leadership development process and the elements that comprise leadership development efforts. It includes focusing on the leader, follower, and the context in which they have been, are, and will be interacting.

BUSS 509: Social Entrepreneurs (3)

Prerequisite: None

This course enables learners to be innovative in managing commercial enterprises in a socially responsible manner. Today's social entrepreneurs and innovators are drowning in dos and don'ts about how to innovate. Today's business is challenged by many factors, more specifically when business is challenged by social, financial and sustainability issues. Skills gained from this course would help social entrepreneurs to use the latest methodologies, tools, tasks and tactics to achieve the right goals in changing the business status quo.

BUSS 510: Contracts, Procurement, & Supply Chain Management Systems (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 410.

This course examines processes through which goods and services are acquired in the project management environment. Topics include contract and procurement strategies, legal issues, contract pricing alternatives, technical, management, and commercial requirements, RFP development, source selection, invitations to bid, bid evaluation, risk assessment, and contract negotiation and administration. By the end of the course, students will have a broad overview and understanding of the procurement cycle and how it relates to contracts, projects, and management.

BUSS 513: Quantitative Analysis of Sustainable Development (3)

Prerequisite: None

This course is designed to provide a general overview of quantitative tools used to analyze sustainability. In addition, this course will explore tools such as risk assessment and other metrics to understand different business problems. Additionally, this course will delve into issues surrounding greenhouse gas quantification, discussing the core quantitative methods for measuring emissions while also touching on protocol and policy frameworks that enable the application and verification of these measurements.

BUSS 514: Risk Management in Project Management (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 415.

This course exposes students to a variety of ways to identify, analyze, and mitigate the full range of project risks. The course also explores the six risk management processes as outlined in the PMBOK Guide: Risk Management Planning, Risk Identification, Qualitative Risk Analysis, Quantitative Risk Analysis, Risk Response Planning, and Risk Monitoring & Controlling. Using a practitioner approach, students learn risk management techniques by applying them to problems raised in case studies.

BUSS 516: Sustainable Business and Financing (3)

Prerequisite: None

This course provides insight into the sustainability challenges and the accompanying link to finance different sustainability options. Traditional finance systems have failed to provide a prudent solution to problems related to sustainability financing. Because it primarily focuses on financial return and regards the financial sector as separate from the society of which it is part and the environment in which it is embedded. As a result, sustainable finance options need to be targeted, and a financial strategy that considers social and environmental returns in combination should join the market.

BUSS 517: Digital Social Innovations (3)

Prerequisite: None

This course intends to introduce learners to the strategies and processes of social innovation and social change. Learners will gain knowledge of strategies of change, including the innovative activities of social and political entrepreneurs, activists, organizations, and social movements. As part of this course, students will examine several individuals and groups who have catalyzed important positive social change through different organizational platforms –in the market, in government, within the nonprofit sector, and increasingly in the space between these three sectors. Throughout the course, students will examine social innovation through case studies, best practice analyses, and relevant readings.

BUSS 518: Merger and Acquisitions (3)

Prerequisite: None

This course is designed to help students understand the analysis and design of M&A deals. It covers best practices in the field of M&A and highlights how they can be applied.

BUSS 519: Venture Capital (3)

Prerequisite: None for new Graduate students; for Undergraduate students must have taken BUSS 362

Special Course Notes: This course is offered as an over/under with BUSS 419.

This course sheds light on students' understanding of the venture capital process, from raising funds and structuring investments to assessing exit pathways. Students who want to pursue a career in venture capital will find this course especially useful.

BUSS 521: Human Behavior and Learning in Organizations (3)

Prerequisite: None

The study of organizational behavior encompasses the behavior of individual organization members and groups within organizations; the myriad of organizational processes, dynamics, and conditions of the organization as a whole; and the ways in which all these factors interrelate. This course helps students develop conceptual, diagnostic, and personal skills for dealing with human interaction in complex organizations with diverse workforces. We will take a systems approach to the material, finding in systems theories the common framework that links organizational processes and dynamics at the

individual, group, and organizational levels. We will compare behavioral theories and deal with a range of topics, including individual development and motivation, group and team development and dynamics, communication, leadership, conflict, power/politics, culture, diversity, creativity, ethics, decision-making, and organizational psyche.

BUSS 522: Organizational Change (3)

Prerequisite: None

This course explores theories and concepts which explain how to gain acceptance and buy-in for change management initiatives within organizations. If management and employees accept these changes, the impact will be beneficial and less disruptive to daily operations. Whether the change is as small as implementing a new financial system or as big as a plant move across the country, the implementation process necessitates planning and communication to ensure success.

BUSS 527: Emergent Roles of Project Management in Business (3)

Prerequisite: None

This course presents and sensitizes students to the changing dynamics in the practice of project management into the foreseeable future. It exposes students to a variety of ways to identify. The premise is that the practice of business – particularly project management will respond to changes in the marketplaces, which often are impacted by consumer and industry special needs, hence requiring different skills for project managers to deliver unique products and services in different modalities. Change management and appreciation of technology will play significant parts in this course. Using a practitioner approach, students will learn how new risks must be handled by the project management in h/her new assignments.

BUSS 529: Contemporary Issues in Business Process Optimization (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 429.

This course helps students understand the process-oriented view of the flow of materials, information, products, and services through and across organizational functions. It also helps to enhance their knowledge of how to carefully analyze, document and continuously assess the efficiency and effectiveness of business processes to minimize cost and maximize value creation.

BUSS 532: Organizational Performance Measure (3)

Prerequisite: None

This course introduces the student to key concepts and techniques to analyze, manage and improve organizational work and performance, with emphasis on the management of assets, resources, value creation, and funding, as well as the development of internal culture behavior and long-term sustainability. Students will understand how to create or develop strategic objectives and manage the implementation of programs and projects to attain outcomes, as well as supply chain processes for different industries and markets. Topics include Strategic management, Managerial Accounting Project Management, Risk, Marketing, and Quality management.

BUSS 535: Management and Ethical Leadership (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 435.

The purpose of this course is for students to acquire knowledge about leadership to lead and follow more effectively and ethically. The course will also assist students with their journey of self-discovery, a journey that lasts a lifetime if you choose to lead. Students will learn new ideas about leadership, strengthen leadership skills, and discover the hidden potential for leadership. Further, students will learn the value of good followership and its importance in the complicated interaction between leaders and followers. There are many more opportunities to be a follower than a leader, especially early in life. The course also explores how to recognize bad leaders and what to do, or not to do, as an exemplary follower. Students are encouraged to acquire greater sensitivity to the ethical dimensions of leadership. Learning to recognize the importance of questions of purpose and to understand leadership as a form of service to others is an important insight and a balance to one's personal ambitions.

BUSS 537: Talent Acquisition and Development (3)

Prerequisite: None

This course provides an in-depth exploration of employee skills, motivation, talent acquisition and development, with emphasis on organizational effectiveness. In addition, the course explores the pace and volume of recent change and brings increased attention to the ways that human resource development (HRD) activities can be applied; globalization a growing base of theory, research, and practical experience to support HRD efforts.

BUSS 541: Principles and Practice of Human Resources (3)

Prerequisite: None

This course provides an in-depth exploration of the use of individuals to achieve organizational objectives; dealing with human resource matters face a multitude of challenges, ranging from a constantly changing workforce to ever-present government regulations, rights and responsibilities, a technological revolution, the world economy, global competition, that will lead to overall success of the organization.

BUSS 542: Strategic Change (3)

Prerequisite: None

Strategic Management is an integrative 'near-capstone' course that seeks to provide a comprehensive look at organizations. Although it will draw upon many of the business courses that you have been exposed to, it does go beyond merely tying together the various functional courses you have had. Using the fundamentals in various areas such as accounting, marketing, finance and management, operations, and management information systems, several contemporary theories and practices of organizations will be explored. Many notable topics such as environmental scanning, corporate response to environmental change and sustainability, strategic and ethical behavior, industry analysis, and globalization of businesses will be addressed.

BUSS 543: Finance for HR Professionals (3)

Prerequisite: None

This course helps HR students in acquiring a fundamental understanding of finance. Human Resource Professionals need to understand finance to collaborate and work well with company leadership and to persuade them to enact HR initiatives that increase employee productivity and drive organizational performance. Skills in finance are essential ones that help improve in promoting organizational goals and improve the bottom line. HR professionals will find this course very useful.

BUSS 545: Human Resource Analytics (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 449.

In this course, students will be introduced to the knowledge of why and how analytics are important in HR, as well as learn and apply an analytic and process model using Excel and Power BI to drive the most important data methods and techniques for organizing, analyzing, and presenting for business decisions. Students will be able to analyze real business human resource problems and submit recommendations helpful for decision-makers.

BUSS 549: Contemporary Issues in Organizational Development (3)

Prerequisite: None for new Graduate students; for Undergraduate students must have a minimum of 90 credits

Special Course Notes: This course is offered as an over/under with BUSS 449.

Contemporary Issues is devoted to studying the historical origins and development of domestic and foreign political and social problems confronting contemporary humanity. Possibilities include regional studies (ex. AIDS in Africa or the state-of-affairs in the Middle East), as well as issues of global concern such as North-South relations, environmental issues, the war on terror, world poverty, sustainable development, and global economic development. Specific topics to explore will be developed in conjunction with the students according to their interests and needs.

BUSS 544: Human Resource in Global Economy (3)

Prerequisite: None

This course sheds light on students' understanding of human resource management (HRM) more broadly across countries, cultures, institutions, and organizational types. This course helps students to explore and understand the key concepts and latest research behind the strategic management of people in organizations that operate in a global context.

BUSS 546: Organizational Lifecycles and HR Applications (3)

Prerequisite: None

This course provides an in-depth look at the traditional and present views of human resource management, as well as the challenges faced by human resource managers in the modern world while promoting employee engagement.

BUSS 547: Legal and Regulatory Environment of Business (3)

Prerequisite: BUSS 220

Special Course Notes: This course is offered as an over/under with BUSS 447.

The legal and regulatory environment of business, emphasizing why legal duties are placed on the business community and how managers should appropriately respond to them. The course covers legal institutions, constitutional law, common law, and public law.

BUSS 548: Marketing Analysis (3)

Prerequisite: None

In this course, students will study various tools for generating marketing insights from data in market segmentation, targeting and positioning, satisfaction management, customer lifetime analysis, customer choice, product and price decisions using

conjoint analysis and search analytics. This is a hands-on course based on the Marketing Engineering (Enginius) approach and Excel software that will be applied to actual business situations. Students will develop a market analytics project by collecting and analyzing primary or secondary data. Students will be able to analyze real business marketing problems and submit recommendations helpful for decision-makers.

BUSS 551: Development and Globalization (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 441.

This course intends to provide a comprehensive overview of globalization and development. It examines processes of globalization and development through a comparative historical lens. The course gives particular attention to development processes in Asia, Africa, and Latin America. Questions about these processes will guide our inquiries towards globalization and development in these countries.

BUSS 552: HR Change Management (3)

Prerequisite: None

The course explores managing change in today's world with special emphasis on individual, team, and organizational levels. Students will engage in in-depth discussions on the issues that cause success or failures in change management and analyze ways to address resisters and promote active participants.

BUSS 553: Economic Development (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 453.

This course covers macro and micro development models and issues. The course will examine an array of development theories, models, and the different aspects of economic development. Course topics include inequality, development models, and the different dimensions related to economic development such as institutions, trade, education, agriculture, and international aid. By doing so, students will learn how development efforts bring adequate nutrition, health services, and education to communities.

BUSS 554: Human Resources Across Organizations (3)

Prerequisite: None

Students will develop an in-depth understanding of the evolution of human resources and how each of us can play a role in shaping its future. From leveraging policy to operationalizing culture to having fun with data, the course will focus on practical, actionable approaches to catalyze change – within the organization, career development, and the workplace at large.

BUSS 557: International Perspectives in Sustainable Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 557.

Sustainability in international business is more than simply adopting sustainable practices--it has the potential to help companies gain a competitive advantage. With the growing globalization of social and economic activities worldwide, environmentalism has become a fundamental component of business practices. Many international companies now out-compete their business rivals by implementing robust environmental stewardship and corporate social responsibility programs, engaging stakeholders, and making these efforts both measurable and visible. This course examines the global business environment in the context of sustainability and explores the challenges and opportunities that the new movement toward sustainability offers multinational enterprises and the countries in which they do business.

BUSS 558: Marketing Analytics (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 448.

In this course, students will study various tools for generating marketing insights from data in market segmentation, targeting and positioning, satisfaction management, customer lifetime analysis, and customer choice, as well as product and price decisions using conjoint analysis and search analytics. This is a hands-on course based on the Marketing Engineering (Enginius) approach and Excel software that will be applied to actual business situations. Students will develop a market analytics project by collecting and analyzing primary or secondary data.

BUSS 561: Sustainable Business Metrics and Reporting (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 461.

The course will give students a comprehensive understanding of sustainability in organizations from an accounting perspective. It walks students through the steps for doing a sustainability assessment and aims to develop them into financial analysts and enable them to understand sustainability reports and can create or audit them.

BUSS 562: Product Design and Development (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 462.

In this course, students will learn the theories, technologies, and practical applications of product design, development, and management for long-term success and survival in an intensively competitive global market.

BUSS 563: Contemporary Issues in Sustainable Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 463.

This course introduces the students to current thinking and research on contemporary issues in business and provides an opportunity to develop a foundation for their future major by researching a contemporary business issue in a major business sector. Students will be expected to read, understand, and evaluate research and analysis on this issue, and demonstrate an understanding of how research and analysis affect proposed solutions or responses to the issue.

BUSS 565: Social Media Marketing (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 465.

This course sheds light on students' understanding of the use of social media and social networks to market products and services, as well as ways to engage with existing customers and how to reach out to new customers. Students will also learn the different types of social media platforms.

BUSS 566: New Venture Management (3)

Prerequisite: None

This course sheds light on students' understanding of entrepreneurship that transform an idea into an effective and value-creating venture in the real world. In creating effective ventures, entrepreneurs not only bring together products/services and markets, but often also create the products and markets as part of the entrepreneurial process; that is, all ideas oriented towards the formation of a venture that creates value by bringing people and resources together. In this course, students will be exposed to a broad overview of key issues to consider in the entrepreneurial process.

BUSS 571: Introduction to New Ventures (3)

Prerequisite: None

Students in this course will learn concepts such as new venture creation; screening techniques that will address the new venture value proposition; models for new venture development which include consideration of the resourcing requirements, the competitive landscape, team development and future strategies will be covered in greater depth/

BUSS 572: Venture Initiation (3)

Prerequisite: None

Students in this course will learn the core concepts of entrepreneurship in an easy-to-follow, logical sequence. Topics covered included: Venture Initiation; Venture Management, and Venture Development. This course will enable students to understand & appreciate how new ventures are initiated and financed. They will also hone their knowledge in applying functional skills (marketing, finance, accounting, etc.).

BUSS 573: Cases in Feasibility Analysis (3)

Prerequisite: None

This course helps students develop the analytical, conceptual, and practical skills required to test the feasibility of a new business concept: identifying, evaluating, and determining whether to exploit an entrepreneurial opportunity. This course requires students to think critically about business concepts.

BUSS 578: Business Risk Analysis and Optimization (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 478.

In the competitive business world, using data to its best advantage becomes essential. In this course, students will learn how to utilize internal and external data to measure, analyze, and predict operational risks businesses are encountering besides financial, market, and credit risks. In this course, students develop their ability to identify macro and micro level risk and evaluate risk management programs, policies, and strategies. Students will be able to analyze real business optimization problems and submit recommendations helpful for decision-makers.

BUSS 580: Operations Management and Analysis (3)

Prerequisite: None

This course is designed to provide students with an introduction to the field of operations management. It provides a clear presentation of the concepts, tools, and applications of operations management.

BUSS 581: Supply Chain and Logistic Management (3)

Prerequisite: None

This course explores the full range of modular implementations – about eight in total, often considered by businesses intending for industry dominance through highly efficient superior resources and operational efficiencies. Topics include contract and procurement strategies, legal issues, contract pricing alternatives, technical, management, and commercial requirements, RFP development, source selection, invitations to bid, bid evaluation, risk assessment, and contract negotiation and administration.

BUSS 582: Quantitative Analysis for Decision Making (3)

Prerequisite: BUSS 280

This course sheds light on students' understanding of quantitative analysis for decision-making. Students will also be able to analyze and use quantitative information for sound business decisions. The various topics covered in this course, such as Multi-Criteria Decision Analysis & Data Mining, will enhance students' skills in this area.

BUSS 583: Project and Operation Management Seminar (3)

Prerequisite: None

This course guides students through fundamental project management concepts and behavioral skills needed to successfully launch, lead, and realize benefits from projects in profit and nonprofit organizations. Successful project managers skillfully manage their resources, schedules, risks, and scope to produce a desired outcome. Students will explore operational concepts and analytic methods that are useful in understanding the management of a firm's operations. Special emphasis will be placed on familiarizing the student with the problems and issues confronting operations managers and providing the student with language, concepts, insights, and tools to deal with these issues to gain a competitive advantage through operations.

BUSS 584: Administration of Service Operations (3)

Prerequisite: None

This course is designed to provide students with an introduction to the administration of service operations. It provides a clear presentation of the concepts, tools, and applications of the field of service operations.

BUSS 585: International Strategy (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 485.

This course sheds light on students' understanding of international business theory and practice from an international business perspective. This course also helps students understand practical tools and theoretical knowledge related to international trade and the exploration of practical issues faced by business managers in international business situations.

BUSS 587: Contemporary Issues in Applying Business Analytics (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with BUSS 487.

This course will introduce students to new practices and issues emerging in Business Analytics (BA) and how those changes contribute to the effective practice of BA. Students will read and discuss various case studies to practically understand various contemporary BA issues related to business.

BUSS 588: Ethical Dilemma of Business Analytics (3)

Prerequisite: None

In this course, concerns about the access of consumers' and institutions' private information without conscious knowledge and approval and the violation of the freedom of individuals because big data analytics is depriving them of making their own decisions will be discussed and analyzed. Moreover, infringement and theft of intellectual property rights that leads to denying people and institutions the right to their ideas and innovations will be debated. Government policies and regulations toward controlling such violations will be reviewed.

BUSS 599: Contemporary Issues in Entrepreneurship (3)

Prerequisite: Minimum of 90 credits

Special Course Notes: This course is offered as an over/under with BUSS 499.

In this course, students will learn the theory of entrepreneurship and its practical implementation and contemporary issues in entrepreneurship.

BUSS 600: Consulting and HR Application (3)

Prerequisite: None

This course sheds light on students' understanding of thinking beyond training (why training); identifying the root causes of performance gaps; selecting and implementing performance consulting strategies by considering both the internal work environment and the external organizational environment.

BUSS 601: Operational Analytics (3)

Prerequisite: None

This course focuses on the operations management challenges faced by [production and service companies of various industries through business cases and analytics exercises. Particular attention is given to incorporating data-driven decision-making into companies' complex processes and the challenges involved in coordinating different decision areas of production & service operations, forecasting, sales, supply chain, inventories, queueing techniques, quality assurance, project scheduling, and reliability/ maintainability across the firm.

BUSS 604: Internship in Business Analytics (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course provides students with an opportunity to gain knowledge and skills from planned work experience in the Data analytics specialization. Students will be exposed to a real-life business problem and apply theoretical and quantitative analytical skills to recommend solutions to decision-makers. The entire course outcome is designed in cooperation with the student, the professor, the program chair, and the university's career services department. Internships provide entry-level, career-related experience, as well as marketable skills and competencies that are highly demanded by employers. At the end of the internship, students will be able to prepare a report about the experience and skills they gained during their stay in their externship.

BUSS 605: Capstone in Business Analytics (3)

Prerequisite: Completion of 4 specialization courses

This capstone course provides an opportunity for students in the Master of Business Analytics program to integrate and apply business analytics skills and knowledge they gained from previous courses to solve real business problems. The objective is to let students access information and large data that will help them complete a semester-wide individual project that produces a business analytics report. This is a self-directed course where the instructor's role is to provide advice, suggestions, and guidance on the project. Students are required to meet weekly to exchange information about the status of their project, to read and discuss on various research works and publications.

BUSS 621: Organization Learning (3)

Prerequisite: None

The Organizational Leadership course is designed to prepare you for employment as an innovative leader in an increasingly diverse technological and global society. This course develops practical workplace competencies that will enable you to meet current and future challenges. The coursework focuses on team building, ethical decision-making, enhanced communication skills, critical thinking, and people skills.

BUSS 624: Global Leadership (3)

Prerequisite: None

This course focuses on understanding leadership and followership in an international context, providing both a theoretical framework and practical skills for leading across cultural boundaries and addressing international challenges. We will enjoy a comprehensive examination of the psychological, social, and cultural factors that underlie expectations, preferences, and judged effectiveness of leadership practices and styles in organizations and work groups in the major cultural regions of the world. The course will focus on developing the development of the student's ability to think critically about the complexity of the direct, indirect, and interactive impact of these factors on leading within multinational organizations that operate worldwide.

BUSS 626: Globalization and Organizational Development (3)

Prerequisite: None

This course deals with human behavior in a variety of organizations. Conceptual frameworks, case discussions, and skill-oriented activities are applied to each topic. Topics include communications, motivation, group dynamics, leadership, power, organizational design and development, and organizational culture. Class sessions and assignments are intended to help participants acquire the skills managers need to improve organizational relationships and performance.

BUSS 632: International and Multicultural Issues in Organizations (3)

Prerequisite: None

This course examines key frameworks for the complex dynamics of diversity and inclusion in organizations at the individual, group, and organizational levels and for improving how people with diverse identities and from different cultures can best function and lead together at work, in ways that are mutually beneficial. What competencies and interventions help foster inclusive and equitable practices in multicultural groups and organizational systems? This brief course uses an experiential and dialogic approach to explore these and related questions from the perspective of social science—particularly organizational psychology and diversity sciences—as well as applied practice.

BUSS 635: Internship in Organization Development (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course exposes business students to real-life work experience. The instructor & students will collaborate to find internship opportunities that are available at area companies. The student will experience first-hand what challenges and opportunities companies have in getting their products and services to market. The internship will focus both on the specific challenges & opportunities faced by your assigned company, as well as its competitors in their respective spaces. Furthermore, the internship will give you the opportunity to build a network in your area, and to transfer some of your learnings and observations to your future endeavors.

BUSS 640: Capstone in Organization Development (3)

Prerequisite: Completion of 4 specialization courses

This course sheds light on students' understanding of human resource management (HRM) more broadly across countries, cultures, institutions, and organizational types. This course helps students to explore and understand the key concepts and latest research behind the strategic management of people in organizations that operate globally.

BUSS 641: Capstone in HR Management (3)

Prerequisite: Completion of 4 specialization courses

This course sheds light on students' understanding of human resource management (HRM) more broadly across countries, cultures, institutions, and organizational types. This course helps students to explore and understand the key concepts and latest research behind the strategic management of people in organizations that operate globally.

BUSS 649: Organizational Leadership, Team Effectiveness and Communications (3)

Prerequisite: None

These themes are strategic thinking, entrepreneurial thinking, and active management. Strategy, for instance, is explicitly concerned with the determinants of superior company performance. We treat performance using the notion of the triple bottom line—the idea that economic/financial performance allows individuals and organizations to perform positively in social and environmental ways as well.

BUSS 650: Employment and Labor Law (3)

Prerequisite: None

This course is designed to provide students with a basic understanding of both labor and employment law. The course will examine the roles and responsibilities of unions and employers, as well as specific employment issues – such as discrimination based on sex, age, or disability – relevant to employers and employees alike. A comprehensive study of collective bargaining, including the negotiation process and the scope of labor contracts to include the day-to-day administration of contracts, the major substantive issues in bargaining to include their implication for public policy; and the problem of dealing with labor conflict. Students will read court decisions, prepare written answers to questions about those decisions, and answer hypothetical questions both in writing and in open class discussions.

BUSS 652: Strategic Human Capital Development (3)

Prerequisite: None

In-depth exploration of how adopting a strategic view of HR, in large part, involves considering employees as human “assets” and developing appropriate policies and programs as investments in these assets to increase their value to the organization and the marketplace. The course examines strategic issues related to staffing, training, performance management, compensation, labor relations, employee separation, and managing a global workforce.

BUSS 653: Internship in HR Management (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course is designed to expose business students to real life experience. Instructor & students will collaborate to get an opportunity for the students to work (internship) in an area company, and to experience first-hand what challenges companies are struggling with in getting their products and services to market and what opportunities they have in getting their products and services to market. The internship will both focus on the specific challenges & opportunities faced by

your assigned company, and its competitors in their respective spaces. Furthermore, the internship will give you the opportunity to build a network in your area, and to transfer some of your learnings and observations to your future endeavors.

BUSS 656: Workplace Ethics (3)

Prerequisite: None

Explores the role of individual, business, and government activities related to ethically responsible commerce and socially beneficial business activity. Analyze the concepts of business ethics from a personal and organizational perspective. Assess the ethical issues facing business leaders.

BUSS 665: Strategic Planning for Sustainability (3)

Prerequisite: None

Issues related to strategic planning and management are central in sustainability studies. Business is concerned about making money, while sustainability issues concern protecting the planet. The traditional approaches used in measuring business performance took quite short time as compared to sustainability. Environmental stewardship and sustainability are seen very skeptically by some executives, and often they do not account for the cost considerations. This course is designed to create future business executives who are sensitive to matters related to sustainability.

BUSS 667: Technology Commercialization (3)

Prerequisite: None

This course is designed to give students a thorough understanding of the technology commercialization process, from invention to market entry. Students will learn about the invention, development, acquisition, management, and exploitation of intellectual property in all areas of technology.

BUSS 668: Entrepreneurship in Innovative Industries (3)

Prerequisite: None

Students in this course will learn the techniques of new venture creation in innovative industries. The course will also provide an overview of the breadth and makeup of the industry, the challenges that new entrants face, and opportunities for successful new venture creation. This course examines entrepreneurship in an industry that creates technical goods and services, as well as consumer products and services based on innovations.

BUSS 669: Entrepreneurship in eCommerce (3)

Prerequisite: None

Students in this course will learn the concept of E-Commerce & E-Business and will examine the difference between traditional & electronic business, the various functions of eCommerce, and the different types of ISP. This course also covers E-Commerce Applications & the role of technology in brand building of the product in E-Commerce.

BUSS 670: Theory and Practice of Diversity, Equity & Inclusiveness (3)

Prerequisite: None

In-depth study of the organizational emphasis on diversity and inclusion with special emphasis on recruitment and selection; promotional prospects; compliance with Title VII, and the benefits of having a diverse workforce.

BUSS 671: Corporate Entrepreneurship (3)

Prerequisite: None

Students in this course will gain knowledge relative to corporate entrepreneurship, that is, the practice of employing entrepreneurial skills and approaches within an organization. Students will also enhance their skills by learning what businesses should do to be more entrepreneurial; that is; to achieve and sustain a true competitive advantage in today's global business environment, companies must be faster, more creative, nimble, flexible and innovative. Also, hence resource availability may be limited or non-existent to support new innovations and initiatives, business need to be more entrepreneurial.

BUSS 672: Entrepreneurial Mindset (3)

Prerequisite: None

Students in this course will gain knowledge regarding the five entrepreneurial mindsets. They will also learn the way of thinking that enables one to overcome challenges, be decisive, and accept responsibility for his or her outcomes. This course also helps students learn skills that enable them to identify and make the most.

BUSS 673: Social Entrepreneurship (3)

Prerequisite: None

This course is designed for students who want to explore social enterprise start-ups, including those who are just curious about the field and want to learn more about entrepreneurship and explore career opportunities. Students will learn the

requisite knowledge and skills to develop a business feasibility plan to start a new social venture, nonprofit, or commercial enterprise.

BUSS 675: Sustainable Energy Systems (3)

Prerequisite: None

This course examines the production and consumption of energy from a systems perspective. Sustainability is examined by studying global and regional environmental impacts, economics, energy efficiency, consumption patterns, and energy policy. First, the physics of energy and energy accounting methods are introduced. Next, the current energy system that encompasses resource extraction, conversion processes, and end-users is covered. Responses to current challenges such as declining fossil fuels and climate change are then explored: unconventional fossil fuels, carbon sequestration, emerging technologies (e.g., renewable sources: biomass, wind, and photovoltaics; fuel cells), end-use efficiency, and conservation.

BUSS 676: Internship in Entrepreneurship (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course is designed to expose business students to real-life experience. Instructor & students will collaborate to get an opportunity for students to work (internship) in an area startup and to experience first-hand what challenges young companies are struggling with in getting their products and services to market. The internship will focus on the specific challenges & opportunities faced by your assigned company and its competitors in their respective spaces. Furthermore, the internship will give you the opportunity to build a network in your area, and to transfer some of your learnings and observations to your future endeavors.

BUSS 680: Internship in Sustainable Business (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course intends to provide students with an opportunity to gain knowledge and skills from a planned work experience in the student's chosen career field. The entire course outcome is designed in cooperation with the student, the supervisor, and the internship office. Internship placements are directly related to the student's program of study and provide learning experiences not available in the classroom setting. Internships provide entry-level, career-related experience and workplace competencies that employers value when hiring new employees. Internships may also be used as an opportunity to explore career fields.

BUSS 685: Optimality of Project Financing (3)

Prerequisite: None

This course sheds light on students' understanding of the rationale for project financing, preparing the financial plan, assessing the risks, designing the financing mix, and raising funds. The course helps students understand how to apply analytical techniques step by step.

BUSS 686: Managing Multinational Operations (3)

Prerequisite: None

This course will focus on practical managerial challenges faced by multinational corporations, such as managing organizational complexity, international strategic communications, mergers and acquisitions, international human resource assignments, political risk, corporate diplomacy and government relationships, innovation in multinational corporations, technology, and cross-culture management, among others.

BUSS 687: Emerging Challenges in Business Optimization and Technologies (3)

Prerequisite: None

Globalization presents central opportunities and challenges for business growth. Whether a firm seeks new markets for its products, lower-cost production opportunities, or high-yield investment vehicles, many of the most attractive opportunities internationally lie in "emerging markets" in Asia, Latin America, Africa, and elsewhere. At the same time, these business environments present unique risks and challenges. Achieving competitive advantage in emerging markets depends on the firm's ability to manage the risks posed by weak legal systems, which limit the enforceability of contracts and property rights while amplifying the challenges of corruption, as well as managing through the macroeconomic, trade policy, and political regime shocks that regularly visit emerging market environments.

BUSS 688: Resource Optimizations Techniques (3)

Prerequisite: None

This course presents students with updated modalities in modern approaches to achieving maximum enterprise returns on investment. Efficient Asset allocation, among other organizational performance metrics, is useful but often insufficient to emergent dynamics from the marketplace. Effective organizations are known to emphasize building value for the

organization through the mastering of resource allocation techniques which produce significant differences between cost abatement and profit margins.

BUSS 689: Internship in Business Optimization (3)

Prerequisite: None

Credit Hour Breakdown: 135 hours of internship

This course is a final major field experience validation for the student candidate of business management education. As a practicum, the goal of this course is to provide an opportunity for the graduating student to be exposed to organizational leadership shadow opportunities in which the students demonstrate not just all previous courses taken but also project management work at the ground, intermediate, and senior levels.

BUSS 690: Capstone in Business Optimization (3)

Prerequisite: Completion of 4 specialization courses

The student's Capstone in Business Optimization is designed to demonstrate your accumulated learning in Business Development in a single original project of your choice, subject to the instructor's approval and under the additional supervision of a faculty mentor. You will present a thesis of no less than 20 words and no more than 25 words. This will NOT include cover page, reference pages. You will be required to have at least 10 reference peer-reviewed scholarly sources. The completed thesis or project should bring together and culminate your cognitive and intellectual growth in business and the overall academic learning experience. As you consider your research project, you will also be engaging in culminating the learning from the Business Optimization program.

BUSS 691: Capstone in Entrepreneurship (3)

Prerequisite: Completion of 4 specialization courses

This course sheds light on students' understanding of business optimizations. The course covers many practical applications of optimization models and a systematic framework that illuminates the common structures found in many successful models with focused coverage on linear programming, nonlinear programming, integer programming, and heuristic programming.

BUSS 693: Social Capital Innovation and Investment (3)

Prerequisite: None

This course sheds light on students' understanding of social entrepreneurship & early social entrepreneurship; the funders & new philanthropy; technology as a force for good & the pull of prizes; activist assets & from entrepreneurship to enterprise and impact investing & international impact investing.

BUSS 695: Capstone in Sustainable Business (3)

Prerequisite: Completion of 4 specialization courses

This course intends to direct students to acquaint the practical sustainable business consulting practices. It will help to direct students how to business practices gear towards improving the communities in which they operate. It will also be exposed them how to design a given consultancy work in different areas of businesses.

CAR 600: Career Planning & Management (3)

Prerequisite: None

This course provides an in-depth exploration and assessment of career values, occupational interests, skills, personality style, work environment preferences, specialization, career exploration, and exposure to career and occupational information resources. Students learn and practice job search strategies and tools, including resumes and interviewing skills, decision-making, goal setting, action planning, and self-marketing techniques for effective career management.

CHEM 101: General Chemistry (3)

Prerequisite: None

This course introduces the fundamentals of chemistry, including atomic and molecular structure, thermo-chemical changes, and conservation of energy.

COMM 111: Oral Communication (3)

Prerequisite: None

The purpose of this course is to expand one's capacity to engage in effective oral communication – from dialogue between two individuals to presentations before groups of all sizes.

Oral communication refers to the speaking and listening skills needed to participate in discussions – to exchange thoughts, to inform and be informed through one another's assertions and assessments, to make offers, requests, and declarations, to explore options, and to make promises and commitments.

The first four weeks of this course explore the context of oral communication to include the effect of individual predispositions or worldviews on oral communication, our awareness, open-mindedness, and understanding of cultural diversity. We also explore the theory and structure of speech acts.

The remainder of this course is focused on developing the skills of oral communication in a variety of contexts, requiring the learner to adapt the communication to the commitments of the presentation. Students will focus on adapting communication styles and content to diverse speakers and audiences. This portion of the course emphasizes composing meaningful and coherent messages, conducting research, and developing effective presentation skills. Students will be required to deliver several oral presentations in front of the class during the semester.

COMM 600: Writing & Editing the News (Introduction to News Editorial Journalism) (3)

Prerequisite: None

Internship Qualified

This course is designed to teach students the craft of basic news writing and editing. Students will learn to recognize and acquire news information, cultivate sources, conduct effective interviews, and write balanced news and feature stories. Students will also learn how a newsroom functions and how news is evaluated for consideration and use in a given news cycle. Students enrolled in this course will acquire the basic knowledge necessary for practicing journalism and evaluating news through tested and ethically sound practices.

COMM 605: Media Ethics (3)

Prerequisite: None

Internship Qualified

This course will cover a wide variety of ethics issues ranging from fairness in the presentation of news (objectivity versus advocacy) to the problems associated with state-sponsored and managed media, to the murky world of maintaining secrecy to hide from the public potentially embarrassing information, on the one hand, and leaking information to the public to further political goals, on the other hand. The course will also examine the manipulation of photo imagery, censorship, and the invasions of privacy that are a part of routine business activities or intrusive government spying. The course will help students develop a deeper, yet clearer, understanding of the complexities involved in the often unethical media practices of governments, businesses, news, and other mass media practitioners.

COMM 610: News Editing (3)

Prerequisite: COMM 600

Internship Qualified

Before or after all credible journalism is the editor. This course will examine the wide-ranging role of the editor in journalism and the editing techniques that result in award-winning products. Among their many roles, editors set the editorial calendar for the year, determine content, dictate design, assign stories, provide guidance, critique and correct stories, select illustrations, and determine story placement. Students will become cognizant of the work editors do and learn what editors expect from their writers and how to deliver on those expectations.

COMM 620: Politics, Journalism, & Business (3)

Prerequisite: None

A principal subject of journalism is politics, but much of the writing about politics involves the triangular relationship between government, business, and journalists. This course will examine those relationships and demonstrate how businesses may use journalism to mediate their interest in shaping public and legislative opinion. It will also examine how government officials use the media to control public opinion and business activities. This course will offer students a clear and pragmatic understanding of the relationship between journalists and government, allowing students to be better positioned to derive advantages in that relationship.

COMM 625: Media Relations (3)

Prerequisite: None

Internship Qualified

This course will provide an in-depth look at news media operations with a focus primarily on using news outlets to deliver, promote, and manage key business messages. Responding effectively to news media queries and crisis communications management will be principal content elements. All major mass communications media will be covered: print, radio, television, and the Internet, with an emphasis on proactivity. (If resources permit in a particular semester, the course will include a day of media training at a Washington, DC, communications facility.) In addition, students will learn how to respond to news media queries effectively, as well as plan, deliver, and manage media campaigns.

COMM 630: International Journalism (3) *Prerequisite: None*

This course will introduce the student to varying philosophical approaches, barriers, and ethical challenges to delivering news on a global basis. Emphasis will be placed on a regional approach to the news with a focus on Western and Eastern Europe; the Middle East; Northern and Sub-Saharan Africa; East, South, and Central Asia; Latin America; North America; and the U.K. There will also be some discussion of journalism education and international media controversies.

COMM 635: Mass Media & Society (3)

Prerequisite: None

Internship Qualified

The psychosocial effects of mass media are deep and varied. This course will introduce the student to the theories and structures underlying mass communications operations and how those operations affect and shape individual perceptions and social values. Additionally, the clash between traditional and emerging media changes how news is gathered, disseminated, and interpreted. The media's role in education, propaganda, and the formation of public opinion will be among other topics receiving emphasis in this course, which is designed in part to help students develop a better sense of how they may influence others through their participation in traditional and emerging mass and social media outlets.

COMM 641: Media Economics (3)

Prerequisite: None

This course will provide a comprehensive introduction to the economic context and the current financial practices of mass media companies. Students will learn the economic factors that influence the success or failure of contemporary media operations, as well as the management issues relating to new product development, the development of global markets, and the challenges of business consolidation. Differentiation will be made between the following industry categories: radio, broadcast TV, cable and satellite TV, motion pictures, music recording, newspapers, magazines, books, and Internet-based outlets.

COMM 643: US Press History (3)

Prerequisite: None

The history of the US press (and, by extension, mass media) is, in many ways, a history of US cultural and intellectual development. This course will examine that history and show how the press has changed and developed through varying economic, political, and technological eras. Emphasis will be placed on how news organizations have managed to survive through changing times and economic conditions, and how intellectual freedom changed with them, especially between the cyclical antipodes of war and peace.

COMM 645: The Development & Use of New Media Technology (3)

Prerequisite: None

The clash between traditional and emerging media continues to alter how information and entertainment purveyors reach their audiences and how audiences may become active participants in the mass communications process. The development of mass communications technology has led not only to different ways to communicate with and shape audiences, but also to different expectations by the audiences themselves. This course will introduce the student to the technologies that have formed and continue to form the basis for mass media operations, from the development of printing to the emergence and ever-expanding development of electronic media. The course will also focus on helping students to better protect their privacy and the interests of their business activities.

COMM 647: The Movies: Film & Video Criticism (3)

Prerequisite: None

Movies – produced with film, video, or hybrid techniques incorporating various types of animation – represent arguably the most influential contemporary medium, whether measured in terms of its influence on public opinion, politics, sociology, or sheer entertainment. This course will explore the history of the medium, the variety of its genres, and how films are made and convey meaning through scripting, production, final editing, marketing, and distribution. (Caveat: This is not a hands-on course in scriptwriting or filmmaking.) The course will provide a comprehensive understanding of how movies are made, how to identify the intentions of moviemakers, and how to critically review and evaluate movies. As part of the course, students will learn how to write and publish movie reviews.

COMM 649: Small Group & Team Communications (3)

Prerequisite: None

Most work today is accomplished through teamwork. That is as true for mass media organizations as for other business organizations. One look on any given day at a major news organization like The Washington Post makes it abundantly clear that teams of writers and editors work daily to deliver individual stories. This course will focus on the small group dynamics, team building, and structure that make such work successful.

COMP 109: Computer Algorithm and Programming Logic using Python (3)

Prerequisite: None

This course introduces core programming basics—including data types, control structures, algorithm development, and program design with functions—via the Python programming language. The course discusses the fundamental principles of Object-Oriented Programming, as well as in-depth data and information processing techniques. Students will problem-solve, explore real-world software development challenges, and create practical and contemporary applications using graphical user interfaces, graphics, and network communications.

COMP 109: Computer Algorithm and Programming Logic Using Python (3)

Prerequisite: None

This course introduces core programming basics—including data types, control structures, algorithm development, and program design with functions—via the Python programming language. The course discusses the fundamental principles of Object-Oriented Programming, as well as in-depth data and information processing techniques. Students will problem-solve, explore real-world software development challenges, and create practical and contemporary applications using graphical user interfaces, graphics, and network communications.

COMP 121: Object Oriented Programming (3)

Prerequisite: COMP 109

This course concentrates on the concepts of object-oriented programming (OOP) paradigm. Concepts presented are exemplified using a selected object-oriented programming language. Topics include fundamental abstraction, modularity and encapsulation mechanisms in OOP, classes, inheritance, polymorphism, exception handling, concurrent programming, and data structures. Students complete a term project that utilizes object-oriented programming.

COMP 124: Information Technology (3)

Prerequisite: None

This course introduces approaches for using information technology and the role of the computer in modern organizations, discussing hardware and software, computer application development, data processing and database systems, and the impact of computer information systems on society. Emphasis is placed on integrating information technologies into the organization to meet organizational needs. Upon completion, students should be able to understand the different approaches to information technology and determine the correct approach to use in the organization.

COMP 127: Office Applications (3)

Prerequisite: None

This course provides an overview of personal computer applications. Students study widely used applications, including word-processing, spreadsheets, presentations, databases, and introductory elements of web development.

COMP 130: Ethical, Social, and Legal Aspects of Computing (3)

Prerequisite: None

This course first provides a review of computer systems, applications and the Internet; and thereafter discusses the impacts of technology on society and the responsibilities of technical professionals as the principal agents in developing and applying new technology. Various important and controversial issues will be discussed, such as computers and privacy, effects of communications technology on the democratic process, environmental problems, intellectual property, and technology and war. Several different ethics codes will be used as the basis for discussion of professional obligations.

COMP 135: Legal and Ethical Issues in Information System (3)

Prerequisite: None

This course explores legal and ethical issues in computer and network security. Students will discover what the laws are concerning computer and network security, including the legal boundaries for breaking into systems without authorization. The course will also cover the issues related to creating security policies for organizations, as well as the ethical responsibilities of protecting network and computer systems, and the ethical boundaries related to accessing other organizations systems.

COMP 157: Seminar I (1)

Prerequisite: None

This course introduces personal skills, talents and abilities, study habits, research methodology, and other soft skills to help students go through their undergraduate studies with more success.

COMP 172: Information Technology Services Management (3)

Prerequisite: None

This course explores legal and ethical issues in computer and network security. Students will discover what the laws are concerning computer and network security, including the legal boundaries for breaking into systems without authorization. The course will also cover the issues related to creating security policies for organizations, as well as the ethical

responsibilities of protecting network and computer systems, and the ethical boundaries related to accessing other organizations systems

COMP 173: Strategic Partnerships (3)

Prerequisite: None

This course covers strategic partnerships concepts which are connected to the organization revenue and competitive advantage. Additional topics such as structure to partnerships will be covered including choosing partners, rolling out partnerships and managing strategic partnerships.

COMP 178: Information Assurance Management (3)

Prerequisite: None

The course provides an overview of several related topics in information security and assurance. The topics covered include: security architecture, security models, access control systems and methodology, applications and systems security, operation security, database security, cryptography, physical security, network and Internet security, business continuity planning, security management and law and ethics in information assurance.

COMP 231: Discrete Mathematical Methods for Computing (3)

Prerequisite: None

This course is intended to be a college-level introductory Discrete Mathematics course for either undergraduate or graduate students. The course focuses on the following seven key topics: Combinatorial Problems and Techniques, Sets, Relations and Functions, Coding Theory, Graphs, Matching, Counting Techniques, Recurrence Relations and Generating Functions.

COMP 240: Client/Server Management (3)

Prerequisite: None

The course covers the technology involved and management of Client Server architecture. The procedures, rules, and guidelines for handling technology such as LAN management and application development. Management structures and processes to manage client server environment will be discussed. Concurrent processing, program interface and algorithms in client server design will be covered. Other topics that will be discussed are: The UDP, TCP server, Windows Server administration, applications server, web servers and remote access technologies. Socket programming will be used in project. Students will be free to use either Java or Python for programming.

COMP 250: Computer Architecture and Digital Design (3)

Prerequisite: COMP 109

Design and analysis of the structure and function of modern computer systems. Topics studied include combinational and sequential logic, number systems and computer arithmetic, hardware design and organization of CPU, I/O systems and memory systems, instruction set, performance characterization and measurement. Tradeoff parameters such as performance (speed), hardware complexity (cost), memory footprint and power consumption are analyzed, current trends and developments in computer architecture and organization.

COMP 260: Introduction to Operating Systems (3)

Prerequisite: None

The course is an introduction to the fundamentals of operating systems. Topics include concurrent processes and synchronization mechanisms; processor scheduling; memory management, virtual memory; paging, file management; input/output management; deadlock management; interrupt structures, interrupt processing; device management; performance of operating systems; synchronization in a multi-programmed operating system and with virtual memory management. Formal principles are illustrated with examples and case studies of one or more contemporary operating systems.

COMP 270: Essentials of Networking (3)

Prerequisite: None

This course includes the fundamentals of network standards, concepts, topologies and terminologies of LANs, WANs, IP addressing, subnet masking and network design, and various protocols (TCP/IP, UDP). This course teaches concepts of the Open Systems Interconnection (OSI) Networking Reference Model, technologies used in wireless networking including Bluetooth, WiMAX, and RFID, network cabling, routing Protocols (static and dynamic) and network switch. Also, this course teaches optical networking and VoIP, network security with encryption techniques as Public-Key Cryptography and Industrial Networks.

COMP 273: Information Technology Infrastructure Library (3)

Prerequisite: None

This course covers Information Technology Infrastructure Library ITIL which is widely adopted body of knowledge and best practices for successful IT Service Management. It covers concepts of ITIL which can be applied to an organization's activities.

COMP 280: Comp TIA A+ and Test Preparation (3)

Prerequisite: None

Topics covered in this course include the personal computer hardware and software troubleshooting techniques, the installation and configuration of operating systems.

COMP 281: Comp TIA Project+ (3)

Prerequisite: None

Topics covered in this course include practices of project management, project's life cycle, roles, and skills necessary to effectively initiate, plan, execute, monitor, control and close a project. Completion of this course will help to prepare students for the CompTIA Project+ Certification Exam

COMP 329: Data Structures and Algorithm Analysis (3)

Prerequisite: None

This course introduces the analysis of algorithms and the effects of data structures on them. Topics include algorithms selected from areas such as sorting, searching, shortest paths, greedy algorithms, backtracking, divide and conquer, and dynamic programming. Data structures include heaps and search, splay, and spanning trees. Analysis techniques include asymptotic worst case, expected time, amortized analysis, solution of recurrence relation and reductions between problems.

COMP 335: Cyber Law and Ethics (3)

Prerequisite: None

This course explores one of the most rapidly growing areas of law. Students will take an in-depth look at the social costs and moral problems that have arisen by the expanded use of the Internet and offers up-to-date legal and philosophical perspectives on the global scale for the business community. The course will feature current research, theoretical frameworks, and case studies, that will highlight the ethical and legal practices used in computing technologies, increase the effectiveness of computing students and professionals in applying ethical values and legal statutes, and provide insight on ethical and legal discussions of real-world applications.

COMP 340: Computer Graphics (3)

Prerequisite: None

This course covers the fundamentals of computer graphic design, including design principles, digital design structures, visual perception, hardware devices, and software. Students create and modify graphics and images using graphics design tools.

COMP 345: Introduction to Computer Security (3)

Prerequisite: None

The course is an introduction to computer security. Course topics include computer security incident response process; computer criminal evidence collection, analysis and handling, email investigation, malicious code investigation, network traffic analysis and router investigation, hacker tools analysis, and computer/network forensic report writing. The course identifies and examines information security threats, information security methods, and implementation approaches used in information technology industry.

COMP 350: Database Concepts (3)

Prerequisite: None

This course introduces the fundamental concepts for design and development of database systems. Topics include: review of relational data model and the relational manipulation languages SQL and QBE; integrity constraints; logical database design, dependency theory and normalization; query processing and optimization; transaction processing, concurrency control, recovery, and security issues in database systems; object-oriented and object-relational databases; distributed databases; emerging database applications.

COMP 360: Switching and Routing Protocols (3)

Prerequisite: None

This course introduces personal skills, talents and abilities, study habits, research methodology, and other soft skills to help students go through their undergraduate studies with more success.

COMP 361: Introduction to Data Science (3)

Prerequisite: None

This course provides an introduction to the data science and combines analytic, programming and business perspectives into easy to digest techniques and thought processes for solving real world data-centric problems.

COMP 362: Data Science Mathematical Foundations (3)

Prerequisite: None

This course introduces mathematical concepts related to the data science. The following topics will be covered the following topics such as probability, optimization, calculus, linear algebra: discrete mathematics and statistics. Applications of the theory to data science and machine learning will be developed.

COMP 363: Data Science Algorithmic Foundations (3)

Prerequisite: None

This course introduces the mathematical and algorithmic foundations of data science, including machine learning, high-dimensional geometry, and analysis of large networks. Topics include algorithms for machine learning, algorithms and analysis for clustering, probabilistic models for large networks.

COMP 364: Statistics Essential for Data Science (3)

Prerequisite: STAT 200

This course introduces the statistics fundamentals for data science. Topics include exploratory data analysis, constructing and interpreting linear and generalized linear models.

COMP 365: Cyber Security and Information Assurance (3)

Prerequisite: None

This course focuses on the managerial aspects of information security and assurance. Topics covered include access control models, information security governance, and information security program assessment and metrics. Coverage on the foundational and technical components of information security is included to reinforce key concepts. The course includes up-to-date information on changes in the field, such as national and international laws and international standards like the ISO 27000 series.

COMP 370: Essentials Digital Forensics (3)

Prerequisite: None

This course covers the concepts of digital forensics, including introduction, digital forensics process, cybercrime law, digital forensic readiness, computer forensics, mobile and embedded forensics, internet forensics, and challenges in digital forensics. I also discuss performing forensic analysis on different types of devices such as PCs, Macs, phones and other devices and the differences and main considerations of each one.

COMP 375: Human Computer Interaction (3)

Prerequisite: COMP 250

The course introduces the students to the fundamentals of human computer interaction (HCI). In considering HCI as an interface between the user and the computer, students will go through different fields of science like engineering, psychology, market needs, and industry. The course covers topics like; interaction design, conceptualizing interaction, cognitive design aspects, social interaction, emotional interaction, data gathering, data analysis, interpretation, and presentation, data at scale, design, prototyping, and construction, interaction design in practice, and interaction design evaluation.

COMP 376: Artificial Intelligence Principles (3)

Prerequisite: None

The course covers the concepts and applications of artificial intelligence. It discusses artificial intelligence as the theory and development of computer systems capable of performing activities or solving problems with little or no human involvement.

COMP 377: Machine Learning Principles (3)

Prerequisite: None

This course provides an introduction to machine learning and statistical pattern recognition. Topics covered include supervised learning: generative and discriminative learning, parametric and non-parametric learning, neural networks, and support vector machines; unsupervised learning: k-means clustering, kernel methods, dimensionality reduction; learning theory: bias and variance tradeoffs, and large margins; and adaptive control and reinforcement learning. The course also discusses recent applications of machine learning such as speech recognition, text and web data processing, robotics, autonomous navigation, bioinformatics, and data mining.

COMP 378: Decision Making and Robotics Principles (3)

Prerequisite: None

The course will cover basic principles for robots with decision making aspects. The course will go over decision making algorithmic approaches and applications for robot perception, human trust in robot and decision-making when collaborating with robots, mobility, localization, rich interactive settings involving interactions with a dynamic environment, mapping, assistive technology, driverless vehicles, cooperative mobile robots, and robots manufacturing. Finally, the course will go over Robot Operating System (ROS).

COMP 379: Human-AI Interaction (3)

Prerequisite: None

The course forms transmission from the human computer interaction to design an interactive intelligent system by adding AI techniques and algorithms. The course will cover different applications and technologies implemented using AI like web search, mobile autocomplete, mobile photo organizer, and voice assistant. It will cover some human robot interaction like spatial, verbal, and nonverbal interaction. Finally, the course gives general guidelines to design a successful human IA interaction application with considering ethical and social aspects.

COMP 380: Wireless and Mobile Security (3)

Prerequisite: None

This course covers concepts of wireless and mobile security, including introduction to mobile and wireless networks, vulnerabilities of wireless networks, wi-fi security, Bluetooth security, WiMAX security, security in mobile networks, next generation of mobile networks.

COMP 390: Seminar II (1)

Prerequisite: COMP 157

This course provides an opportunity for students to utilize their academic experience either through a research paper or a project with their main focus on continuing their graduate studies or applying their skills in real world cases through an employment.

COMP 391: Internship in Networking (3)

Prerequisite: Minimum of 90 credits

Credit Hour Breakdown: 135 hours of internship

This course represents an opportunity for students receive academic credit through supervised practical training in networking and earn industry experience in an actual work environment. The internship course guides the learning contract established in the beginning of the term, on which students have to report at the end of term. Students are expected to work at least 135 hours per semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 392: Internship in Cyber Security (3)

Prerequisite: Minimum of 90 credits

Credit Hour Breakdown: 135 hours of internship

This course represents an opportunity for students receive academic credit through supervised practical training in cybersecurity and earn industry experience in an actual work environment. The internship course guides the learning contract established in the beginning of the term, on which students have to report at the end of term. Students are expected to work at least 135 hours per semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 393: Internship in AI (3)

Prerequisite: Minimum of 90 credits

Credit Hour Breakdown: 135 hours of internship

This course represents an opportunity for students receive academic credit through supervised practical training in AI and earn industry experience in an actual work environment. The internship course guides the learning contract established in the beginning of the term, on which students have to report at the end of term. Students are expected to work at least 135 hours per semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 394: Internship in Machine Learning (3)

Prerequisite: Minimum of 90 credits

Credit Hour Breakdown: 135 hours of internship

This course represents an opportunity for students receive academic credit through supervised practical training in ML and earn industry experience in an actual work environment. The internship course guides the learning contract established in the beginning of the term, on which students have to report at the end of term. Students are expected to work at least 135 hours per semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 396: Internship in Data Science (3)

Prerequisite: Minimum of 90 credits

Credit Hour Breakdown: 135 hours of internship

This course represents an opportunity for students receive academic credit through supervised practical training in data science and earn industry experience in an actual work environment. The internship course guides the learning contract established in the beginning of the term, on which students have to report at the end of term. Students are expected to work at least 135 hours per semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 410: Intrusion Detection and Prevention Systems (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 510.

This course covers the concepts of intrusion detection and prevention from different aspects. The topics include network overview, infrastructure monitoring, IDS, proactive IPS, anomaly detection, web application firewalls, wireless IDS/IPS, physical intrusion detection, geospatial intrusion detection, return on investment, etc.

COMP 411: Cloud Security (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 511.

This course covers the concepts of cyber security in the realm of cloud computing. Topics include: cloud computing basics, cloud computing models, security and compliance in the cloud, foundations of integrity and trustability in the cloud, boundary control in the cloud, network security in the cloud, identity management in the cloud, virtual machines and their security.

COMP 412: Special Topics in Networking (3)

Prerequisite: Minimum of 90 credits

Special Course Notes: This course is offered as an over/under with COMP 512.

This course will cover topics of current interest, specifically emerging topics and technologies in computer networking selected by the faculty. Topics will be announced before each semester.

COMP 413: Robotics Design and Programming (3)

Prerequisite: COMP 378

Special Course Notes: This course is offered as an over/under with COMP 513.

The course will offer hands on robotics design using Python programming language. Students will dive deeply into the field of robotics and stimulate their interests throughout their participation of the entire engineering design process. This course will go over a quick introduction on robots, raspberry pi, design robot wheel, arms, sensors, and motors. Then the students will go over programming the robot vision, communication and gamepad.

COMP 414: Big Data Analytics (3)

Prerequisite: None

The course explores the roles, needs, challenges, principles, trends, platforms, analytic lifecycle/methods, and architectures/frameworks relevant to big data technology. Students will learn modern big data analytics tools/systems. Students will solve problems by using big data analytics tools/systems.

COMP 415: Natural Language Processing (3)

Prerequisite: None

The course introduces the techniques and tools necessary to build natural language processing systems/applications. It surveys the concepts and significance of the automatic manipulation of natural language by software. Students will explore the field, tools, and modern practice of natural language processing.

COMP 416: Computer Vision and Image Processing (3)

Prerequisite: None

The course covers the fundamental concepts and techniques of computer vision and image processing. Topics include formation of digital images, light propagation, color perception, optical systems, and analog-to-digital conversion of signals. It surveys the formation, properties, and enhancement of digital images.

COMP 417: Special Topics in AI (3)

Prerequisite: Minimum of 90 credits

Special Course Notes: This course is offered as an over/under with COMP 517.

This course will cover topics of current interest, specifically emerging topics and technologies in AI selected by the faculty. Topics will be announced before each semester.

COMP 418: Special Topics in ML (3)

Prerequisite: Minimum of 90 credits

Special Course Notes: This course is offered as an over/under with COMP 518.

This course will cover topics of current interest, specifically emerging topics and technologies in ML selected by the faculty. Topics will be announced before each semester.

COMP 419/519: Special Topics in Cybersecurity (3)

Prerequisite: Minimum of 90 credits

This course will cover topics of current interest, specifically emerging topics and technologies in Cybersecurity selected by the faculty. Topics will be announced before each semester.

COMP 420: Creativity in Machine Learning (3)

Prerequisite: COMP 329

This course introduces the use of machine learning algorithms and models to perform creative tasks. Topics covered include how machine learning can be leveraged for creative applications across industries. Different types of machine learning models will be explored, including Convolutional Neural Networks, and applied in creative tasks. The course also discusses potential use and misuse of innovative technologies.

COMP 421: Smart Devices Design and Applications (3)

Prerequisite: COMP 329

Special Course Notes: This course is offered as an over/under with COMP 521.

The course focuses on the technologies, examples, and application of smart devices. It covers device communication and interactions, connectivity of devices to cloud-based infrastructures, interoperability, distributed and edge computing, data collection, and methods to derive information and knowledge from connected devices and systems using artificial intelligence and machine learning. The course focuses also on smart cities and Internet of Things infrastructure. In addition to the application that students will still study, they will go through case studies of smart cities in the United States and around the globe like UK, South Korea, and Brazil.

COMP 422: Data Mining (3)

Prerequisite: COMP 329

Special Course Notes: This course is offered as an over/under with COMP 522.

The course covers the data, data types, preparation, visualization of data, patterns that can be mined, technologies that can be used and major issues in data mining. It also covers mining technologies like frequent pattern mining, association rules, Classification models, model efficiency, classification accuracy, cluster analysis and methods, clustering and analyzing different type of data, Outlier detection and analysis using cluster based and classification-based techniques, cluster, classification and pattern mining of streaming data and specialized mining methods for text data.

COMP 430: Ethical Hacking (3)

Prerequisite: None

The course introduces the fundamentals of protecting information technology resources from cyberattacks. It covers the tools and penetration testing methodologies used by the ethical hackers. Students will also learn to select and utilize tools to protect against security vulnerabilities.

COMP 431: Cryptography and CIPHERING (3)

Prerequisite: None

The course will cover basic topics in Cryptography by dividing it into two parts, that is, secret key cryptography and Public key cryptography. The course contents include elements of cryptography and cryptanalysis, the classical Cryptosystems, Enigma, DES and AES algorithms and their modes of operations, MACs and Hash functions, RSA and ElGamal public key Cryptosystems, Hash Functions, Security protocols, PGP and Kerberos, X509 protocol, Zero Knowledge Techniques, Digital Cash and Electronic Voting.

COMP 429: Operating Systems Security (3)

Prerequisite: COMP 260

Special Course Notes: This course is offered as an over/under with COMP 532.

This course covers security concepts related to the operating systems. The course describes security threats in the Operating System scope and then focuses on Windows operating system and discusses the security topics in conjunction with Windows OS. The course looks at security measures for Windows, protection against malware, audit tools and group policies. And it also looks at ways to harden the Windows Operating System.

COMP 433: IoT and Smart Cities Security (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 533.

The course will feature the Interconnected IoT devices and their security, Smart City security architecture and security challenges. Privacy and Application security feature of Smart City will be covered. The course also covers challenges faced when integration technologies in Smart City applications including Big Data cybersecurity and Smart homes. Securing Free public Wi-Fi and Privacy preservation of E-Government, Smart Transport system, fraud detection and privacy concerns of augmentation of personal lifestyle of Smart Cities.

COMP 434: Information Risk Management (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 534.

The course covers Seven domains of IT infrastructure, identification of Hardware, software and personal assets, identification of threats, vulnerabilities and exploits to the assets, Analyzing Risk mitigation and security controls, Risk assessment approaches, challenges and best practices, Risk assessment methodologies, Regulations and laws, standards, guidelines, policies, Planning Risk mitigation, Business impact analysis and disaster recovery plans.

COMP 436: Cyber Security Governance and Compliance (3)

Prerequisite: COMP 432

The course surveys the frameworks, models, and mechanisms relevant to the cybersecurity governance and compliance. Students will explore the frameworks and models that can be deployed to be in compliance with business related regulations as well as to withstand different forms of cyberattacks.

COMP 440: R Programming for Data Science (3)

Prerequisite: COMP 121

During this course, students will develop basic skills for obtaining, cleaning, transforming, and visualizing real-world datasets using the R programming language and the RStudio integrated development environment. Statistical methods for analyzing, interpreting, and predicting dataset trends are then introduced and approached from a computational point of view using randomization and simulation. Additional topics may be covered, such as an introduction to advanced or special topics like cross-validation.

COMP 441: Statistical and Computational Foundations of Machine Learning (3)

Prerequisite: STAT 200

This course introduces the statistics and computational foundations of machine learning. Topics covered include probability (random variables, modeling with continuous and discrete distributions), linear algebra (inner product spaces, linear operators), and multivariate differential calculus (partial derivatives, matrix differentials) as applicable to the machine learning. Topics covered include computational complexity, analysis of algorithms, proof techniques, optimization, dynamic programming, recursion, and data structures. Students will apply the mathematical and computation concepts by writing programs.

COMP 442: Numerical Analysis (3)

Prerequisite: COMP 231

Special Course Notes: This course is offered as an over/under with COMP 542.

This course provides a range of numerical solutions for problems in natural sciences, social sciences, engineering, and business. The topics are included but not limited to linear systems of equations, matrix topic and properties, nonlinear equations, polynomials, and more. At the advanced level, topics would be approximation methods, differential equations, extrapolation methods, and error propagation.

COMP 443: Data-Intensive Distributed Computing (3)

Prerequisite: COMP 250

Special Course Notes: This course is offered as an over/under with COMP 543.

The course has two parts namely the theory and hands on. The theory will cover the topics like: Distributed system architecture, File system, processing, Transaction management, communications, Concurrency control, reliability, recovery, replication and security in the context of distributed data storage and processing. The hands-on part of the course will cover distributed processing using Hadoop and MapReduce. Students are required to demonstrate that they can install, configure and use Hadoop at the end of the class.

COMP 444: Special Topics in Data Science (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 545.

The course will cover the concepts of assumptions, characteristics and role of scientific research and analytic skills needed for design, data sampling and analysis of experimental results. The course also covers internal and external research

validation skills, control techniques. Qualitative and quantitative research methods, random and nonrandom sampling techniques, Descriptive and inferential statistical skills, trend analysis, linear modeling techniques and analysis of convergence, research report presentation.

COMP 445: Introduction to AI for Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 545.

In this course students will learn artificial Intelligence and machine learning techniques, methods, and software to design and develop systems to solve business problems like analytics to make decisions. Deep learning and Cognitive computing will be discussed along with the impact of robotics applications in industry and its effect on jobs with some legal implications. New generation of expert systems will be covers. IoT technologies as an enabler to analytics will be covered.

COMP 449: Financial Analysis for Technology Manager (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 549.

The course covers the financial tools managers use to address the questions such as the financial condition of the company or organization, the company's or organization's long-term investment, how to raise money for the investment, how the company or organization meets daily financial requirements. Topics include accounting statements, types of costs, profit, financial markets, investment decision tools, net present value, free cash flows, project financing, risk management, cost of capital, long-term and short-term financing, and equity financing for entrepreneurs. Discussion also covers mergers and acquisition activities, governance and ethics. Business cases from contemporary companies or organizations and readings relevant to technology management are used to illustrate the application of financial concepts.

COMP 450: Research and Analytic Skills (3)

Prerequisite: None

This course introduces personal skills, talents and abilities, study habits, research methodology, and other soft skills to help students go through their undergraduate studies with more success.

COMP 455: Information Technologies for Mobile Commerce (3)

Prerequisite: None

The course covers the financial tools managers use to address the questions such as the financial condition of the company or organization, the company's or organization's long-term investment, how to raise money for the investment, how the company or organization meets daily financial requirements. Topics include accounting statements, types of costs, profit, financial markets, investment decision tools, net present value, free cash flows, project financing, risk management, cost of capital, long-term and short-term financing, and equity financing for entrepreneurs. Discussion also covers mergers and acquisition activities, governance and ethics. Business cases from contemporary companies or organizations and readings relevant to technology management are used to illustrate the application of financial concepts.

COMP 460: Web Application Development for Business (3)

Prerequisite: None

The course covers how to develop completed browser-based business application., how to use common web tools to develop business applications. The following topics are covered such as HTML, common web technologies. This course also covers how developers can use technology to develop and deploy business applications that user's access via the Web.

COMP 463: Systems Analysis and Design for Business (3)

Prerequisite: None

This course provides an overview of the systems development life cycle when designing a business project. It introduces tools and methods for the analysis and design of information systems and the management and organizational skills needed for their implementation. Information analysis in entity-relationship modeling and process modeling in data flow diagrams will be covered as the key skills in structured system analysis and design.

COMP 465: Contemporary Issues in IT Management (3)

Prerequisite: Minimum of 90 credits completed

The course covers contemporary issues in information technology management. The following topics are covered, management issues in network, service, helpdesk, application, development and other phases of the information technology project life cycle.

COMP 480: AWS Test Preparation for Cloud Practitioner Certificate (3)

Prerequisite: None

Topics covered in this course include AWS cloud, the basic global infrastructure, architectural principles, basic security and compliance aspects of the AWS platform and the shared security model, basic/core characteristics of deploying and operating in the AWS cloud. Completion of this course will help prepare students for the AWS Cloud Practitioner certification exam.

COMP 483: IBM AI Engineering Professional Test Preparation (3)

Prerequisite: None

Topics covered in this course include machine learning, deep learning, neural networks, ML algorithms, machine learning algorithms and pipelines, supervised and unsupervised machine learning models. Completion of this course will help prepare students for the IBM AI Engineering Professional Test.

COMP 486: Comp TIA Network+ and Test Preparation (3)

Prerequisite: COMP 270

Topics covered in this course include networking architectures, cabling, Ethernet, network installations, TCP/IP and its applications, remote technology, wireless networking, network monitoring and troubleshooting. Completion of this course will help prepare students for the CompTIA Network+ certification exam.

COMP 487: Comp TIA Security+ and Test Preparation (3)

Prerequisite: COMP 345

This course provides students with the knowledge and skills to assess & evaluate the security of an IT infrastructure or environment and to recommend & implement the appropriate security solutions. Students will gain the awareness of security related laws/policies/regulations, including principles of governance, risk, and compliance. Student will learn to identify, analyze, and respond to security events and incidents. Completion of this course will prepare students to sit for the CompTIA Security+ certification exam.

COMP 484: Microsoft Certified Azure Data Scientist Associate (3)

Prerequisite: COMP 432

Topics covered in this course include. how to implement and run machine learning workloads using Azure Machine Learning Service, run data experiments, manage, train and deploy models, managing and optimizing models. Completion of this course will help prepare students for the Data Science Solution on Azure certification exam.

COMP 485: SAS Certified Data Scientist (3)

Prerequisite: None

The course will cover SAS programming steps like data preparation, use of SAS procedures and data analytics. The course will have a detailed discussion of data analytics process, Data visualization, Normal distribution, descriptive and inferential statistics, the variance, linear regression, logistic regression, Predictive Models, Preparing input for model and performance evaluations.

COMP 499: Senior Project and Seminar (4)

Prerequisite: COMP 390

This course provides a hands-on experience to undergraduate students as related to their area of interest within the scope of the program. The objective is to give students insights and access to information that will help them complete a project in this course. Students in this seminar course are expected to work under the direct supervision of the faculty advisor of the course. Students are required to attend as many meetings/seminars as needed and specified by the faculty advisor and be able to determine how well the learning objectives of the course are accomplished.

COMP 501: Advanced Operating Systems (3)

Prerequisite: COMP 260

This course provides an in-depth coverage of modern operating systems, including architectures, file systems, memory models, uniprocessor scheduling, and multiprocessor scheduling. It surveys the contribution of virtualization technology to the development of virtual machines. It also provides an overview on the embedded, cloud, and IoT operating systems.

COMP 502: Design and Analysis of Algorithms (3)

Prerequisite: COMP 329

This course provides an in-depth coverage of modern operating systems, including architectures, file systems, memory models, uniprocessor scheduling, and multiprocessor scheduling. It surveys the contribution of virtualization technology to the development of virtual machines. It also provides an overview on the embedded, cloud, and IoT operating systems.

COMP 503: Networking and Telecommunications (3)

Prerequisite: COMP 270

This course includes a comprehensive overview of the interaction and relationship between telecommunications and data processing. It covers telecommunications fundamentals, as well as the important relationships among coding, error detection and error correction, and noise. Topics as switching, timing, topological structures, routing algorithms, and teleprocessing are discussed. Other topics covered include protocols, network monitoring and security, and system validation.

COMP 504: Database Management Systems (3)

Prerequisite: COMP 350

The course covers fundamentals of logical database design. Different database models and their implementation. Relational algebra and relational calculus. Design theory of relational databases, keys, functional dependencies and normalization. Storage mechanisms. Structured query language and use of semantics for query optimization. DDL, constraints, views and triggers. Transaction processing and concurrency controls. Recovery from failures. Assertions and database.

COMP 505: Research Methods (3)

Prerequisite: None

Course covers major considerations and tasks involved in conducting scientific research, particularly in the area of information technology. It also covers research concepts, methods, evaluation, and applications of research in the information technology field. The course will also guide the students through the process of writing a research paper including the following aspects such as choosing a research problem, identifying sources, hypothesis, variables to be examined, assumptions. Students are expected to submit a proposal if they choose the Thesis COMP 698 option or a project concept paper if they choose a capstone project option COMP 680, COMP 681, or COMP 682 based on their program.

COMP 510: Intrusion Detection and Prevention Systems (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 410.

This course covers the concepts of intrusion detection and prevention from different aspects. The topics include network overview, infrastructure monitoring, IDS, proactive IPS, anomaly detection, web application firewalls, wireless IDS/IPS, physical intrusion detection, geospatial intrusion detection, return on investment, etc.

COMP 511: Cloud Security (3)

Prerequisite: None for new Graduate students; for Undergraduate students must have a minimum of 90 credits

Special Course Notes: This course is offered as an over/under with COMP 411.

This course covers the concepts of cyber security in the realm of cloud computing. Topics include: cloud computing basics, cloud computing models, security and compliance in the cloud, foundations of integrity and trustability in the cloud, boundary control in the cloud, network security in the cloud, identity management in the cloud, virtual machines and their security.

COMP 512: Special Topics in Networking (3)

Prerequisite: COMP 503 for new Graduate students; for Undergraduate students must have a minimum of 90 credits

This course will cover topics of current interest, specifically emerging topics and technologies in computer networking selected by the faculty. Topics will be announced before each semester.

COMP 513: Robotics Design and Programming (3)

Prerequisite: COMP 329 for new Graduate students; for Undergraduate students must have taken COMP 378

The course will offer hands on robotics design using Python programming language. Students will dive deeply into the field of robotics and stimulate their interests throughout their participation of the entire engineering design process. This course will go over a quick introduction on robots, raspberry pi, design robot wheel, arms, sensors, and motors. Then the students will go over programming the robot vision, communication and gamepad.

COMP 514: Neural Networks (3)

Prerequisite: None

This course surveys the intuition behind neural networks, the significance of neural networks, and best practices of neural network applications. Topics include models of a neuron, neural network architecture, perceptron algorithms, regularization theory, principles of self-organization, self-organizing maps, learning models, intricacies of the learning process, dynamic programming, and neuro-dynamics. Students will learn the best practices and applications of neural networks.

COMP 515: Pattern Recognition (3)

Prerequisite: None

This course examines the techniques used in extracting hidden patterns and trends from the data of different categories. Students will learn the classification of objects into classes using patterns. The topics discussed in this course are: Classifiers based on Bayes decision theory and linear, nonlinear, Context dependent classifiers, Markov models, supervised

and semi supervised learning, Clustering techniques and categories of clustering algorithms that includes sequential, hierarchical and based on group theory.

COMP 516: Deep Learning (3)

Prerequisite: None

This course overviews the deep learning technology and relevant subjects including theory, architectures, limits, impact, benefits, and applications. Students will learn the fundamentals of the deep learning, evaluate and select the deep learning applications based on the given requirements, and apply the best practice of the deep learning in solving business problems.

COMP 517: Special Topics in AI (3)

Prerequisite: None for new Graduate students; for Undergraduate students must have a minimum of 90 credits

Special Course Notes: This course is offered as an over/under with COMP 417.

This course will cover topics of current interest, specifically emerging topics and technologies in AI selected by the faculty. Topics will be announced before each semester.

COMP 518: Special Topics in ML (3)

Prerequisite: None for new Graduate students; for Undergraduate students must have a minimum of 90 credits

Special Course Notes: This course is offered as an over/under with COMP 418.

This course will cover topics of current interest, specifically emerging topics and technologies in ML selected by the faculty. Topics will be announced before each semester.

COMP 519: Special Topics in Cybersecurity (3)

Prerequisite: COMP 503

This course will cover topics of current interest, specifically emerging topics and technologies in Cybersecurity selected by the faculty. Topics will be announced before each semester.

COMP 520: Digital Forensics (3)

Prerequisite: None

The course surveys the fundamentals of computer forensics and the techniques used in identifying, collecting, preserving and analyzing digital evidence. Introduces the contemporary crime and the related legal issues and laws. Covers the steps and activities required in handling computer forensics, including the physical environment, hardware, software, and data.

COMP 521: Smart Devices Design and Applications (3)

Prerequisite: COMP 329

Special Course Notes: This course is offered as an over/under with COMP 421.

The course focuses on the technologies, examples, and application of smart devices. It covers device communication and interactions, connectivity of devices to cloud-based infrastructures, interoperability, distributed and edge computing, data collection, and methods to derive information and knowledge from connected devices and systems using artificial intelligence and machine learning. The course focuses also on smart cities and Internet of Things infrastructure. In addition to the application that students will still study, they will go through case studies of smart cities in the United States and around the globe like UK, South Korea, and Brazil.

COMP 522: Data Mining (3)

Prerequisite: COMP 329

Special Course Notes: This course is offered as an over/under with COMP 422.

The course covers the data, data types, preparation, visualization of data, patterns that can be mined, technologies that can be used and major issues in data mining. It also covers mining technologies like frequent pattern mining, association rules, Classification models, model efficiency, classification accuracy, cluster analysis and methods, clustering and analyzing different type of data, Outlier detection and analysis using cluster based and classification-based techniques, cluster, classification and pattern mining of streaming data and specialized mining methods for text data.

COMP 523: Big Data Principles (3)

Prerequisite: COMP 504

The course covers the concepts, models, layers, and applications of the big data. Students will learn to recognize different data elements, identify frequent data operations for various types of data, design big data infrastructure plans, and apply techniques to handle the big data related problems.

COMP 524: Metadata Applications in Complex Big Data Problems (3)

Prerequisite: COMP 504

Course explores technical and analytical issues, solutions and gaps in processing large volumes of data by leveraging metadata and provides extensive understanding for theory and methods of creating and using metadata.

COMP 525: Role of Analytics in Decision-making (3)

Prerequisite: None

Course covers data analytics and its role in business decisions. This course will cover why data is important and how it has evolved. The following concepts will also be covered such as big data, a framework for conducting Data Analysis and what tools and techniques are commonly used.

COMP 527: Distributed Operating Systems (3)

Prerequisite: COMP 501

This course surveys the architecture, models, storage system, and applications of the distributed operating systems. Topics include system models, internetworking, web services, inter-process communication, remote invocation, indirect communication, name services, distributed file systems, and security issues.

COMP 528: Data Analytics Foundation (3)

Prerequisite: None

Course covers data analytics and business intelligence algorithms. Introduces algorithms for data mining and machine learning. Discusses data modeling skills required for processing and interpreting data for classification, clustering, prediction and other.

COMP 529: Information Fusion (3)

Prerequisite: None

Course provides an overview of the fundamental concepts, frameworks and applications in the field of information fusion. It discusses the design, development, implementation, integration, and validation of information fusion for real-world applications.

COMP 531: Algorithms for Data Analytics (3)

Prerequisite: COMP 329

Course covers data analytics and business intelligence algorithms. Introduces algorithms for data mining and machine learning. Discusses data modeling skills required for processing and interpreting data for classification, clustering, prediction and other.

COMP 532: Operating Systems Security (3)

Prerequisite: COMP 260

Special Course Notes: This course is offered as an over/under with COMP 429.

This course covers security concepts related to the operating systems. The course describes security threats in the Operating System scope and then focuses on Windows operating system and discusses the security topics in conjunction with Windows OS. The course looks at security measures for Windows, protection against malware, audit tools and group policies. And it also looks at ways to harden the Windows Operating System.

COMP 533: IoT and Smart Cities Security (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 433.

The course will feature the Interconnected IoT devices and their security, Smart City security architecture and security challenges. Privacy and Application security feature of Smart City will be covered. The course also covers challenges faced when integration technologies in Smart City applications including Big Data cybersecurity and Smart homes. Securing Free public Wi-Fi and Privacy preservation of E-Government, Smart Transport system, fraud detection and privacy concerns of augmentation of personal lifestyle of Smart Cities.

COMP 534: Information Risk Management (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 434.

The course covers Seven domains of IT infrastructure, identification of Hardware, software and personal assets, identification of threats, vulnerabilities and exploits to the assets, Analyzing Risk mitigation and security controls, Risk assessment approaches, challenges and best practices, Risk assessment methodologies, Regulations and laws, standards, guidelines, policies, Planning Risk mitigation, Business impact analysis and disaster recovery plans.

COMP 542: Numerical Analysis (3)

Prerequisite: COMP 231

Special Course Notes: This course is offered as an over/under with COMP 442.

This course provides a range of numerical solutions for problems in natural sciences, social sciences, engineering, and business. The topics are included but not limited to linear systems of equations, matrix topic and properties, nonlinear equations, polynomials, and more. At the advanced level, topics would be approximation methods, differential equations, extrapolation methods, and error propagation.

COMP 543: Data-Intensive Distributed Computing (3)

Prerequisite: COMP 250

Special Course Notes: This course is offered as an over/under with COMP 443.

The course has two parts namely the theory and hands on. The theory will cover the topics like: Distributed system architecture, File system, processing, Transaction management, communications, Concurrency control, reliability, recovery, replication and security in the context of distributed data storage and processing. The hands-on part of the course will cover distributed processing using Hadoop and MapReduce. Students are required to demonstrate that they can install, configure and use Hadoop at the end of the class.

COMP 544: Special Topics in Data Science (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 444.

The course will cover the concepts of assumptions, characteristics and role of scientific research and analytic skills needed for design, data sampling and analysis of experimental results. The course also covers internal and external research validation skills, control techniques. Qualitative and quantitative research methods, random and nonrandom sampling techniques, Descriptive and inferential statistical skills, trend analysis, linear modeling techniques and analysis of convergence, research report presentation.

COMP 545: Introduction to AI for Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 445.

In this course students will learn artificial Intelligence and machine learning techniques, methods, and software to design and develop systems to solve business problems like analytics to make decisions. Deep learning and Cognitive computing will be discussed along with the impact of robotics applications in industry and its effect on jobs with some legal implications. New generation of expert systems will be covers. IoT technologies as an enabler to analytics will be covered.

COMP 549: Financial Analysis for Technology Manager (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 449.

The course covers the financial tools managers use to address the questions such as the financial condition of the company or organization, the company's or organization's long-term investment, how to raise money for the investment, how the company or organization meets daily financial requirements. Topics include accounting statements, types of costs, profit, financial markets, investment decision tools, net present value, free cash flows, project financing, risk management, cost of capital, long-term and short-term financing, and equity financing for entrepreneurs. Discussion also covers mergers and acquisition activities, governance and ethics. Business cases from contemporary companies or organizations and readings relevant to technology management are used to illustrate the application of financial concepts.

COMP 555: Information Technologies for Mobile Commerce (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 455.

The course covers the financial tools managers use to address the questions such as the financial condition of the company or organization, the company's or organization's long-term investment, how to raise money for the investment, how the company or organization meets daily financial requirements. Topics include accounting statements, types of costs, profit, financial markets, investment decision tools, net present value, free cash flows, project financing, risk management, cost of capital, long-term and short-term financing, and equity financing for entrepreneurs. Discussion also covers mergers and acquisition activities, governance and ethics. Business cases from contemporary companies or organizations and readings relevant to technology management are used to illustrate the application of financial concepts.

COMP 560: Web Application Development for Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 460.

The course covers how to develop completed browser-based business application., how to use common web tools to develop business applications. The following topics are covered such as HTML, common web technologies. This course also covers how developers can use technology to develop and deploy business applications that user's access via the Web.

COMP 563: Systems Analysis and Design for Business (3)

Prerequisite: None

Special Course Notes: This course is offered as an over/under with COMP 463.

This course provides an overview of the systems development life cycle when designing a business project. It introduces tools and methods for the analysis and design of information systems and the management and organizational skills needed for their implementation. Information analysis in entity-relationship modeling and process modeling in data flow diagrams will be covered as the key skills in structured system analysis and design.

COMP 565: Contemporary Issues in IT Management (3)

Prerequisite: Minimum of 90 credits completed

Special Course Notes: This course is offered as an over/under with COMP 465.

The course covers contemporary issues in information technology management. The following topics are covered, management issues in network, service, helpdesk, application, development and other phases of the information technology project life cycle.

COMP 591: Internship I in Networking and Cybersecurity (3)

Prerequisite: Completion of core courses and 50% of the program courses

Credit Hour Breakdown: 135 hours of internship

This course offers hands-on experience to students enrolled in the Master of networking and cybersecurity degree in a domain close to their main career path intentions. Students are encouraged to pursue projects that would allow them to apply engineering design concepts gained in the classroom, going through all stages of system development, from analysis and design to implementation and testing. These three (3) credits hour project internship is for students who are expected to work a minimum of 135 hours during the semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 593: Internship I in AI and Machine Learning (3)

Prerequisite: Completion of core courses and 50% of the program courses

Credit Hour Breakdown: 135 hours of internship

This course offers hands-on experience to students enrolled in the Master of networking and cybersecurity degree in a domain close to their main career path intentions. Students are encouraged to pursue projects that would allow them to apply engineering design concepts gained in the classroom, going through all stages of system development, from analysis and design to implementation and testing. These three (3) credits hour project internship is for students who are expected to work a minimum of 135 hours during the semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 596: Internship I in Data Analysis (3)

Prerequisite: Completion of core courses and 50% of the program courses

Credit Hour Breakdown: 135 hours of internship

This course offers hands-on experience to students enrolled in the Master of networking and cybersecurity degree in a domain close to their main career path intentions. Students are encouraged to pursue projects that would allow them to apply engineering design concepts gained in the classroom, going through all stages of system development, from analysis and design to implementation and testing. These three (3) credits hour project internship is for students who are expected to work a minimum of 135 hours during the semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 610: Cognitive Computing (3)

Prerequisite: None

Course covers principles, techniques and models for developing cognitive computing and artificial intelligence-based systems. Covers how to prepare and formulate data collection, sampling, preprocessing for such systems. Introducing the technical and managerial issues in developing and using applications based on cognitive computing and Artificial Intelligence Applications techniques.

COMP 611: Data Warehousing (3)

Prerequisite: COMP 540

This course examines the technical skills required to design, implement, and maintain a data warehouse. It covers basic data warehousing concepts, dimensional modeling and its benefits over ER model, data warehousing system design and implementation, gathering data from primary data sources, transforming data, cleaning and loading data (ETL) into a data marts. Integrating data marts into data warehouse. Students learn how to create a cube using OLAP and analyze cube data using client applications, the typical data warehouse components and architecture.

COMP 613: Game Design (3)

Prerequisite: COMP 502

This course covers an overview of game design and theory. Topics include the roles of game designers, game structures and elements as well as game development stages and methods. Students learn about designing, prototyping, developing, and playtesting games.

COMP 614: Speech Recognition (3)

Prerequisite: None

Course introduces essential algorithms used in speech recognition and discuss and demonstrate how to uses them as a basis to explore general text and speech and machine learning algorithms relevant to a variety of other areas in computer science. The course will make use of several software libraries and will study recent research and publications in this area.

COMP 617: AWS Certified Machine Learning (3)

Prerequisite: None

This course surveys the objectives of AWS Certified Machine Learning exam. It prepares students with the knowledge and skills needed to design, implement, deploy, and maintain machine learning solutions. Topics include AWS built-in machine learning algorithms, AWS machine learning services, exploratory data analysis using AWS machine learning tools, automatic model turning as well as data engineering with AWS S3, kinesis, and DynamoDB.

COMP 618: Google Machine Learning (3)

Prerequisite: None

This course surveys the design and development of machine models to solve business problems utilizing Google Cloud platform. Topics include design of machine learning models, machine learning algorithms, developing machine learning models, monitoring machine learning solutions, and optimizing machine learning solutions. Google machine learning knowledge and skills that students will gain include all aspects of machine learning model architecture, data preparation/processing/pipeline, metric interpretation, infrastructure management, and data engineering.

COMP 620: Wireless Network Security (3)

Prerequisite: COMP 503

The course surveys the weaknesses, architecture, components, protocols, standards, and policies of the wireless network security. Topics include the scope of the wireless network, the security policies and laws relevant to the wireless networks, the evaluation and selection of tools or systems to harden the wireless network security, and the emergency management.

COMP 621: Data Security and Data Protection (3)

Prerequisite: None

This course examines defense-in-depth strategies for securing database which are constantly under threat especially from SQL injection and other forms of attacks. It also covers mechanisms for securing data at rest and in transit. The topics covered in this course include: current protocols for the secure exchange of data; the Data Encryption Standard and the Advanced Encryption Standard and secure mechanisms for communication; the Public Key Infrastructure (PKI) and the use of digital signatures and certificates for protecting and validating data; firewalls, VPN, IDS/IPS, PKI, patch management, authentication and password security, application security, granular access control, securing database-to database communications, encryption, privacy, fault tolerance, protection of personal identifiable information (PII), regulations and compliance (SOX, HIPAA, GLBA, etc.), logging, auditing and auditing architectures. Strategies for the physical protection of information assets are also studied.

COMP 622: Principles of GIS (3)

Prerequisite: None

The course surveys the principles, data input, data models, data measurements, and applications of the geographic information system (GIS). It covers the data capturing, data storing, and data presentation via the geographic information system to support the better understanding of the spatial patterns and relationships.

COMP 623: Cisco Certified Network Professional (CCNP) (3)

Prerequisite: None

This course covers the objectives of the latest Cisco Certified Network Professional (CCNP) Enterprise core exam. It focuses on Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR). It prepares students with the knowledge of the enterprise infrastructure, including IPv4 architecture, IPv6 architecture, virtualization, infrastructure, network assurance, security, and automation as well as sit for the CCNP Enterprise core exam.

COMP 625: Certified Information Systems Security Professional (CISSP) (3)

Prerequisite: None

This course covers the objectives of Certified Information Systems Security Professional (CISSP) exam and prepares students with the knowledge and skills to sit for CISSP exam. Key topics include security architecture, security operations, asset security, identify & access management, risk management, security assessment & testing, network security, and software development security.

COMP 626: Web Analytics (3)

Prerequisite: None

This course examines web structures and extracting information from web using automated and wrapper induction. It will also cover collaborative filtering, web document indexing, content management using clustering and classification techniques, social network analysis, page ranking and HITS algorithms, sentiment analysis that includes document, sentence and aspect level sentiment analysis and opinion mining.

COMP 627: Descriptive and Predictive Analytical Tools (3)

Prerequisite: COMP 528

This course covers the survey of descriptive and predictive analytics with a detailed discussion of software tools that are used for visual analytics and predictive analysis. Course will examine the features of Visual tools like Tableau, IBM Cognos, Qlik Sense and Microsoft Power BI. Some of best available tools for predictive analysis will also be covered. Students will use Tableau and Python for hands-on exercises for visual and predictive analysis.

COMP 628: Special Topics in Data Analytics (3)

Prerequisite: None

This course will cover topics of current interest, specifically emerging topics and technologies in data analysis selected by the faculty. Topics will be announced before each semester.

COMP 629: Privacy and Security in Big Data (3)

Prerequisite: None

The course overviews the privacy and security in the big data environment, surveys the mechanisms to manage access controls to the big data systems, and discusses the big data relevant security policies. It prepares students with the knowledge and skills necessary to recognize threats, assess risks, evaluate vulnerabilities, and recommend the proper measures in order to improve and control the privacy and security in the big data system.

COMP 630: Text Analytics (3)

Prerequisite: COMP 504

This course examines text data access and retrieval method including the techniques of extracting and processing. The course will also cover NLP and information systems, Document ranking, common retrieval functions, applications of text data mining and analysis, text classification and clustering algorithms, word extraction and word clustering, topic analysis, opinion mining and sentiment analysis and use of text mining in Cybercrime. Capturing IM and IRC chats and cyberbullying detection.

COMP 631: Cloudera Certified Associate (CCA) Data Analyst (3)

Prerequisite: None

This prepares students with the knowledge and skills needed to create tables, alter tables, create views, improve query performance, prepare reports using query language commands, calculate aggregate statistics, create queries against multiple data sources, transform the output format of queries, and perform complex queries utilizing Cloudera Impala and Apache Hive. Students will be able to sit for the Cloudera Certified Associate Data Analyst (CCA159) certification exam.

COMP 632: Microsoft Certified Azure Data Scientist Associate (3)

Prerequisite: None

This course prepares students with the skills to undertake tasks, including setting up Azure Machine Learning workspace, running experiments & train models, optimizing & managing models, deploying & consuming models, planning & creating appropriate working environments for data science workloads on Azure. Students will be able to sit for Microsoft Azure Data Scientist certification exam.

COMP 680: Network and Cybersecurity Capstone Project (3)

Prerequisite: COMP 505

This course focuses on a technical project that emphasizes engineering design of capstone project in network and cybersecurity. It will be carried out by the master student under the supervision of a faculty member. Based on the project topic identified in COMP 505, students will complete the preliminary work. A progress report must be submitted at the end of the semester detailing the problem description, proposed solution approach, and a list of deliverables.

COMP 681: AI and ML Capstone Project (3)

Prerequisite: COMP 505

This course focuses on a technical project that emphasizes engineering design of capstone project in AI and Machine Learning. It will be carried out by the master student under the supervision of a faculty member. Based on the project topic identified in COMP 505, students will complete the preliminary work. A progress report must be submitted at the end of the semester detailing the problem description, proposed solution approach, and a list of deliverables.

COMP 682: Data Analytics Capstone Project (3)

Prerequisite: COMP 505

This course focuses on a technical project that emphasizes engineering design of capstone project in Data Analytics. It will be carried out by the master student under the supervision of a faculty member. Based on the project topic identified in COMP 505, students will complete the preliminary work. A progress report must be submitted at the end of the semester detailing the problem description, proposed solution approach, and a list of deliverables.

COMP 691: Internship II in Networking and Cybersecurity (3)

Prerequisite: COMP 591

Credit Hour Breakdown: 135 hours of internship

This course offers hands-on experience to students enrolled in the Master of networking and cybersecurity degree in a domain close to their main career path intentions. Students are encouraged to pursue projects that would allow them to apply engineering design concepts gained in the classroom, going through all stages of system development, from analysis and design to implementation and testing. These three (3) credits hour project internship is for students who are expected to work a minimum of 135 hours during the semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 693: Internship II in AI and Machine Learning (3)

Prerequisite: COMP 593

Credit Hour Breakdown: 135 hours of internship

This course offers hands-on experience to students enrolled in the Master of networking and cybersecurity degree in a domain close to their main career path intentions. Students are encouraged to pursue projects that would allow them to apply engineering design concepts gained in the classroom, going through all stages of system development, from analysis and design to implementation and testing. These three (3) credits hour project internship is for students who are expected to work a minimum of 135 hours during the semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 696: Internship II in Data Analysis (3)

Prerequisite: COMP 596

Credit Hour Breakdown: 135 hours of internship

This course offers hands-on experience to students enrolled in the Master of networking and cybersecurity degree in a domain close to their main career path intentions. Students are encouraged to pursue projects that would allow them to apply engineering design concepts gained in the classroom, going through all stages of system development, from analysis and design to implementation and testing. These three (3) credits hour project internship is for students who are expected to work a minimum of 135 hours during the semester. Students are required to attend two meetings/seminars with their faculty advisor to determine learning objectives and assess how well learning objectives are being accomplished.

COMP 698: Master Thesis (3)

Prerequisite: COMP 505

The thesis work is a continuation of the research proposal submitted in COMP 505. Students are encouraged to start their thesis work as early as possible. The thesis work can comprise the problem statement, literature review, research methodology, analysis and conclusion parts of the research established in COMP 505. In this Thesis, students complete the project and write the thesis.

ECON 101: Principles of Microeconomics (3)

Prerequisite: None

Microeconomics mainly studies the economic choices facing the individual entities, including consumers and business firms. This course covers the basic topics of economic tradeoffs, supply and demand model, concept of elasticity, consumer choice model, theories of cost and production, and the firm's behavior and performance under different market structures. The course also introduces the students to the problems of market failure and public choice, and the impacts of public policy on consumers and business firms.

ECON 102: Principles of Macroeconomics (3)

Prerequisite: None

Macroeconomics is primarily concerned with economic analysis and policy making at the national level. This course introduces the students to the basics of national income determination, measurements of inflation and unemployment rates, economic fluctuations, and economic growth. The course also covers the foundations of aggregate demand and aggregate supply, the basics of the classical and Keynesian models, the tools of fiscal and monetary policies, and an introduction to macroeconomic policy debates.

ECON 207: Intermediate Microeconomics (3)

Prerequisite: ECON 101 Principles of Microeconomics

Internship Qualified

In addition to an in-depth coverage of the core concepts covered in ECON 101, this course incorporates a number of intermediate microeconomic topics, including the general equilibrium model, game theory, and decision making under risk and uncertainty. The course applies algebra and extensive graphical analysis in presenting its main topics. It also involves problem solving to demonstrate real-world applications of the theoretical microeconomic concepts.

ECON 208: Intermediate Macroeconomics (3)

Prerequisite: ECON 102 Principles of Macroeconomics

Internship Qualified

This course goes beyond the basic concepts presented in ECON 102 and provides an in-depth coverage of the core macroeconomic topics within an analytical framework. Furthermore, it introduces the students to a number of modern macroeconomic topics; including credit market imperfections, new Keynesian economics, the monetarist counterrevolution, and international macroeconomics. The course applies algebra and extensive graphical analysis and involves problem solving to demonstrate the real-world applications of its theoretical concepts.

ENGL 120: Academic Writing (3)

Prerequisite: None

Academic Writing focuses on reviewing the fundamentals of standard written English for academic purposes. Students will practice writing common forms of academic documents and demonstrate the ability to successfully use APA formatting. This interactive class provides students with an opportunity to improve their academic writing skills necessary for success in college and beyond.

GEOG 101: World Geography (3)

Prerequisite: None

The purpose of this course is to develop your understanding of the physical, cultural, social, and economic conditions of world regions and how these conditions reflect and shape worldviews.

“The study of Geography is about more than just memorizing places on a map. It’s about understanding the complexity of our world, appreciate the diversity of cultures that exist across continents and in the end, it’s about using all that knowledge to help bridge divides and bring people together.” - Barack Obama

The course will introduce you to global diversity with emphasis on regional and global interrelationships and interdependencies and exploration of opportunities for collaboration across regions and nations to improve the human condition and secure the planet for future generations. At the personal level, this course will guide each of us in becoming responsible global citizens through setting a good example, listening to others, and responding to others needs and having a sense of responsibility toward one another and the planet.

GEOL 101: Introduction to Geology (3)

Prerequisite: None

This course provides an introduction to the dynamics of the earth –volcanoes, earthquakes, plate tectonics, rivers and streams, groundwater, glaciers, waves, wind, and landslides –with an emphasis on the environment applications of these processes. This course also covers tools of the geologist, for example maps and aerial photographs.

GOVT 121: World Governments (3)

Prerequisite: None

Welcome to World Governments – a course opportunity to explore and discuss government systems around the globe, as well as build your own capacity to critically and thoughtfully examine the impact of government on those who are governed. This course provides you with conceptual and analytical tools that you can use to address and answer a wide range of questions about the social world. What is the purpose of government? How does government affect our quality of life and economic conditions? What about personal health and education? Does it encourage or shift social and cultural practices? What are the ethical and social obligations that it has to the people? Is it aligned with the ethics and sense of moral good of those governed?

This course has been designed to encourage your engagement in the fast-paced world we live in while drawing distinctions and comparisons between the way we govern and are governed around the world. The focus is on understanding and explaining political phenomena that take place within a nation's government system. Our approach is to explore the extent to which governments systems serve their citizens, as well as the system's global impact.

Throughout the course, you will focus on selected countries, and using the tools of analysis of political systems, will examine the evidence of impact across multiple factors and seek to reach conclusions about the extent to which citizens and global interests are being served. You will also consider government systems in terms of a theory of worldviews and explore options for building conditions that have the potential of increasing capacity for serving humanity and the planet.

This course is organized into four parts:

- In Part 1, you will explore the purpose, types, structure, and political processes of government systems in the world today, as well identify the core values and beliefs associated with each type. This portion of the course is primarily descriptive and qualitative. It provides a foundation for more in-depth exploration in subsequent weeks of study.
- Part 2 introduces dimensions of geopolitics and analysis of government systems and the primary tools used for that analysis. During this part of the course, you will begin to apply those tools to describe assigned nation-states.
- In Part 3, you will use a variety of available resources to help them assess the consequences of government systems for their citizens, other nations, and the world. Using the tools and domains of assessment introduced in the previous section, you will conduct an in-depth assessment, analysis, and comparison of selected governments in today's world.
- Part 4 introduces a theory of worldviews as applied to government systems and explores strategies for further developing each government's ability to serve their citizens, other nations, and the world. You will assess worldviews of selected countries and suggest strategies for advancing those worldviews.

GOVT 130: American Society and Politics (3)

Prerequisite: None

The class is designed to provide students with a core understanding of American politics and society and inspire their interest and possibly involvement in the American political system. It is comprised of three main modules. The first part of the course explores the historic, cultural and religious origins of the American state and focuses on the issues of American exceptionalism, national identity, religious roots and early political development. The second module centers on the key principles, institutions, and decision-making processes of the American political system, and evaluates the basis strengths and weaknesses of American modern governance. Finally, module three, examines some of the most current and prominent dilemmas in modern American life, including the politics of race, social security, health care and gender issues.

HIST 101: World History (3)

Prerequisite: None

World History is the only course offering students an overview of the entire history of humankind. The major emphasis is on the study of significant people, events, and issues from the earliest times to the present. Traditional historical points of reference in world history are identified as students analyze important events and issues in western civilization as well as in civilizations in other parts of the world.

HUMN 101: Introduction to the Arts and Humanities (3)

Prerequisite: None

This course is designed to provide a conceptual understanding and overview of the major disciplines of the humanities including music, theatre, cinema, visual arts, philosophy, and literature. This course will help students hone their critical thinking, interpretation, and discussion skills.

HUMN 105: Principles of Learning (3)

Prerequisite: None

The purpose of this course is to develop each student's capacity to learn in order to apply that capacity to *self-fulfillment* and *social performance* throughout life. Since life's conditions are always changing and requiring new knowledge and skills, we often find ourselves in the role of beginner. As a beginner, we can allow ourselves to live with wonder, to give ourselves permission to make mistakes, and learn from those mistakes. We can learn to trust those who can teach us as we advance from beginner through competence, proficiency, and expertise to eventual mastery in those areas of life to which we dedicate ourselves. Students will explore learning styles and learning design principles to support learning and the capacity to learn. Students will explore the language of being though

speech acts and practices of presence. Students will become observers of their own speaking and listening, and through language and learning, students will understand and develop new worldviews and possibilities in life.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from reflective exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

HUMN 125: Foundations of Adult Development (3)

Prerequisite: None

We commonly speak of thinking patterns in one of two models. Some begin with the general or big picture and move to the specifics in an effort to find a solution to the challenge or opportunity each situation presents. Others use the pattern of moving from the specific to the general pattern by focusing on the details and aligning them so a big picture view can emerge. This course is designed to allow us to integrate both types of thinking into a holistic approach for developing our worldview. It introduces a cohesive and comprehensive system of thinking that provides a methodology for looking at the macro and micro issues simultaneously. The course introduces us to a practical and usable change technology that helps us align and connect all the variables, stakeholders, cultures, sub-cultures, and other interests of a complete system.

We begin by exploring the holistic model of worldviews based on the emergent cyclical theory of Clare Graves and conclude with an emphasis on the application of the model to real-world issues. Students will be able to incorporate these practices into the assessment and development of their particular worldview and take effective action in developing solutions at macro and micro levels across multiple domains of human concerns.

This course is a participatory seminar. We will discuss assigned readings and discoveries gleaned from reflective exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

HUMN 150: Practices of Learning (3)

Prerequisite: None

The purpose of this course is to pursue the practices of learning and being. The content of this course includes concepts and practices of observation, awareness of cognitive bias, brainstorming, critical thinking, problem-solving, decision-making, and priority-setting. The central goal of this course is to empower students to think more clearly and analytically about what they believe and be more effective in social performance.

Human beings bring a wide range of cognitive biases to our worldview and these biases can lead us to reach invalid conclusions and make decisions that make subsequent action both ineffective and inefficient. This course begins with building capacity to observe with an emphasis on openness to a “world to word” way of being as opposed to projecting our beliefs onto the world or living a “word to world” approach.

Tools and processes for exploring possibilities through brainstorming, critical thinking, problem-solving, decision-making, and priority-setting are introduced and practiced in a variety of situations inside and outside the classroom. Throughout the semester, we will emphasize the application of course material to real-world issues. Students will be able to incorporate these practices into the assessment and development of their particular worldview.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from reflective exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

HUMN 200: Discovering a Life of Self-Fulfillment (3)

Prerequisite: None

Self-fulfillment is the combination of the hopes we have for our lives, as well as the plans we create to achieve them. When you know what fulfills you, you can make a conscious effort to design your life around it. This course is about discovery – exploring our lives for what we find fulfilling and meaningful, declaring our commitments, and developing plans and practices that move us forward in fulfilling our commitments and creating a meaningful life. We will focus on learning and practicing how to live a meaningful and fulfilling life, cultivate what is best within yourself, and apply principles of design thinking to enhance your experiences of life across all domains of action including work, family, community, personal development, and play.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from reflective exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

INCS 300: Principles of Global Citizenship (3)

Prerequisite: None

The purpose of this course is to broaden the student's worldview in the context of global citizenship. Being a global citizen requires an understanding and awareness of the context of that citizenship through an exploration of the conditions shaping our future from a global perspective. The first part of this course defines the meaning and practices of global citizenship. In subsequent weeks, students will explore the nature of globalization through lenses of power, interdependence, issues of sustainability, conflict at international and regional levels, and corporate responsibility. In later weeks of the course, possible actions for addressing global issues are introduced.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from experiential exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

INCS 325: Practices of Global Citizenship (3)

Prerequisite: None

The purpose of this course is to broaden the student's worldview and engender pro-social values and practices. Being a global citizen includes cultural awareness, embracing diversity, promoting social justice, and responsibilities to act. This course explores the concept of citizenship, what constitutes meaningful citizenship, and the global dimensions of citizenship. Students will explore worldviews and values aligned with being a global citizen. Furthermore, students will explore the commitments and practices of being a global citizen and the differences it can make.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from experiential exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

MATH 160: Precalculus (3)

Prerequisite: None

The primary purpose of this course is to build skills for describing the world quantitatively using mathematical reasoning and traditional algebraic tools, and to apply those skills in day-to-day living. This course introduces the essential concepts of Precalculus needed to be successful in math including polynomial, rational, exponential, logarithmic, and trigonometric functions.

The underlying teaching philosophy is that students who study mathematics should develop skills of active inquiry and independent thought that will be used to solve problems around the world. Providing a solid foundation for the study of calculus and advanced mathematics, the course will emphasize skills development and critical thinking. It will prepare you for courses in calculus and higher mathematics and for courses in technology where knowledge of Precalculus is a prerequisite.

Throughout the course, you will explore how algebra is used in social and physical sciences and the world around you, helping to shape your worldview, increasing your capacity for impact, and empowering you to succeed in college, your career, and your life. The assigned text, *Precalculus*, by Robert Blitzer provides engaging applications of mathematical concepts to our day-to-day living.

MATH 165: Calculus I (3)

Prerequisite: MATH 160

This course covers functions, limits, the derivative, maximum and minimum problems, the integral and transcendental functions.

MBA 511: Managerial Accounting and Finance (3)

Prerequisites: ACCT 201, BUSS 303

This course focuses on companies' sources and uses of financial resources as well as accounting management. Students will focus on capital/debt structure decision and capital budgeting techniques, with particular emphasis on the impact of long and short-term uses and sources of funds on the firm's value.

MBA 512: Project & Cost Management (3)

Prerequisite: STAT 200

This course focuses on the planning, organizing, and managing of resources to bring about the successful completion of specific project goals and objectives, especially within specific start and completion dates. In addition,

students will learn how to adhere to classic project constraints of scope, quality, time and budget while learning the tools and techniques necessary to minimize the risk of failure in achieving the organization's goal and objectives.

MBA 513: Organizational Behavior (3)

Prerequisite: None

This course focuses on how people behave in organizations and groups. Topics include leadership, motivation, organizational culture, and roles within groups.

MBA 514: Marketing Management (3)

Prerequisite: None

This course examines the methods and strategies used by corporations and firms in developing marketing efforts, strategy and policies. It focuses on the practical application of marketing techniques and the management of company's marketing resources and activities to create an effective, cost-efficient marketing strategy to succeed and become profitable, in particular, within rapidly emerging forces of globalization. In addition, the course provides learning experience and cultivates operational skills and knowledge on designing and facilitating marketing campaigns within the business environment.

MBA 605: Auditing (3)

Prerequisite: None

Internship Qualified

This course provides students with the knowledge of a variety of auditing issues. It focuses on basic auditing concepts and principles including professional standards, planning an audit and auditing internal controls, evidence gathering, fraud, and sampling tools for audits, as well as a review of audit procedures and audit reports.

MBA 608: Financial Reporting and Decision Making (3)

Prerequisite: None

Internship Qualified

This course presents accounting reporting and decision-making tools used in various businesses. Students will understand basic to complex financial reporting and decision-making concepts and practices. Topics include the analysis of financial statements, ratio analysis, benchmarking, valuation concepts, risk, budgeting, investments, and taxes.

MBA 610: Taxation of Business Entities (3)

Prerequisite: None

Internship Qualified

This course provides students with the knowledge of a variety of tax issues. The course includes a basic introduction to taxation, tax issues with investments, and other business transactions. The course will also cover taxation of various types of corporations and individuals including gift and income taxes.

MBA 611: Business Ethics and Law (3)

Prerequisite: None

This course examines the legal and ethical basis of decision-making in business organizations. Topics include torts, contracts, liability, and the Uniform Commercial Code.

MBA 614: International Finance (3)

Prerequisite: MBA 511

Internship Qualified

This course concentrates on the following topics: (1) basics of international financial markets including derivatives; and (2) managerial perspectives on international finance. The course includes an analysis of different types of financial instruments, such as currencies, stocks, futures, options, international risk and diversification, and swaps. The course covers the theoretical concepts of international financial markets and the study of valuations, acquisitions, and strategies using various techniques to analyze foreign investments.

MBA 620: Long-Term Financial Decisions (3)

Prerequisite: MBA 511

Internship Qualified

This course places an emphasis on the optimal acquisition and allocation of long-term sources of capital. Topics include working capital, capital budgeting evaluation models, cash flow analysis, diversification, portfolio approaches to capital budgeting, capital structure, cost of capital, lease-purchase decisions, abandonment, and mergers.

MBA 621: Trading and Risk Management (3)

Prerequisite: MBA 511

Internship Qualified

This course will cover the different financial markets and trading theories that different market participants use to profit from moves in the market. Unlike an investments course, this class will focus more on the economic and psychological factors that move secondary markets instead of advanced calculations based on efficient market theory.

MBA 654: Accounting Information Systems (3)

Prerequisite: None

Internship Qualified

This course focuses on the analysis and design of systems that facilitate the accounting process. The students will learn how to evaluate, develop, implement and apply accounting models, processes, and internal controls used in the accounting processes. The course introduces the use of simple to complex data flow diagrams for evaluation and decision-making.

PHIL 102: Philosophy, Living, and Being (3)

Prerequisite: None

This course introduces the study of philosophy through the history of philosophical thought and texts from ancient, modern, and contemporary thinkers. It also introduces a broad spectrum of philosophical problems and perspectives with an emphasis on the systematic questioning of basic assumptions about knowledge, meaning, reality, and values.

The primary concern of philosophy is the study of ideas central to the ways we think and live. The value, however, of many of our key concepts is often hidden from us. We take the ways we make sense of ourselves and the world for granted. We forget why truth matters or acting decently is a minimal requirement for treating others justly. This course also includes an opportunity for self-reflection and consideration of one's priorities in life.

Philosophy makes the invisible visible. It cultivates techniques that will help you to become clearer about what matters to you most and develops skills that are essential in the pursuit of every discipline.

"In life, nothing matters. Unless you let it. This simple fact means you possess the greatest power in the world, the power to create your actual life experience." - John Viscount, *Mind What Matters*.

PHYS 102: Introduction to Physics (3)

Prerequisite: None

This course will introduce you to the fundamental principles of physics and their application to everyday life. The fundamental principles discussed in this course include mechanics (motion, energy, simple machines, momentum, gravity), heat and thermodynamics, electricity and magnetism, optics, sound, and light. You will gain an understanding of the physics principles involved in your everyday environment. Our approach to this course engages students by relating physics content to their lives and the greater society helping students understand the process of science by teaching critical thinking skills that are used in everyday life.

Throughout the course, you will explore how physics is used in social and physical sciences and the world around you, helping to shape your worldview, increasing your capacity for impact, and empowering you to succeed in college, your career, and your life. The assigned text, *College Physics*, provides engaging applications of physics concepts to our day-to-day living.

PMP 605: Project Management Systems (3)

Prerequisite: None

Internship Qualified

This course emphasizes planning and introduces project management fundamentals and principles from the standpoint of the manager who must organize, plan, implement, and control non-routine activities to achieve schedule, budget and performance objectives. Topics include project life cycles, project organization, project charters, work breakdown structures, responsibility matrixes, as well as basic planning, budgeting and scheduling systems. Planning and control methods such as PERT/CPM, Gantt charts, earned value systems, project management software applications, and project audits are introduced.

PMP 610: Quality Project Management Practices (3)

Prerequisite: None

This course focuses on the quality function, its implementation, and cost as well as management in both the manufacturing and service industries. The course provides students with a set of quality concepts and tools and the knowledge required for their application in quality planning, quality improvement, and quality control.

PMP 615: Risk Project Management (3)

Prerequisite: None

This course exposes students to a variety of ways to identify, analyze, and mitigate the full range of project risks. The course also explores the six risk-management processes as outlined in the PMBOK® Guide: risk management planning, risk identification, qualitative risk analysis, quantitative risk analysis, risk-response planning, and risk monitoring and control. Using a practitioner approach, students learn risk-management techniques by applying them to problems raised in case studies.

PMP 620: Contract and Procurement Management (3)

Prerequisite: None

Internship Qualified

This course examines processes through which goods and services are acquired in the project management environment. Topics include contract and procurement strategies; legal issues; contract pricing alternatives; technical, management and commercial requirements; RFP development; source selection; invitations to bid; bid evaluation; risk assessment; and contract negotiation and administration. By the end of the course, students will have a broad overview and understanding of the procurement cycle and how it relates to contracts, projects and management.

PMP 623: Leading Projects Across Cultural, Corporate, and Global Boundaries (3)

Prerequisite: None

Internship Qualified

Emerging and evolving economies, world circumstances, and global competition require that project managers be able to lead and manage project in this challenging arena. Project Managers must operate within environments that contain diverse cultures and projects including multiple corporations crossing international boundaries. Sensitive issues surrounding multinational and multicultural environments will be addressed and discussed as factors that shape project outcomes.

PMP 625: Advanced Project Management Practices (3)

Prerequisite: PMP 605

Internship Qualified

This course examines current topics in the project management field and provides a comprehensive review of the Project Management Body of Knowledge (PMBOK® Guide). Topics may include global project management, leadership, virtual teams, and project information systems. In addition, the general overview of principles and practices of the Project Management Professional (PMP) certification exam, administered by the Project Management Institute (PMI) will be introduced.

PMP 650: PMP Exam Preparation (3)

Prerequisite: PMP 605, PMP 610, and PMP 615

The focus of this course is to familiarize students with both the CAPM (Certified Associate in Project Management) and PMP (Project Management Professional) exams, as administered by the Project Management Institute (PMI). The overall exam administration processes will be reviewed and each of the knowledge areas (Integration Management, Scope Management, Time Management, Cost Management, Quality Management, Risk Management, Human Resource Management, Communication Management and Procurement & Contract Management) as aligned with the process groups (Initiating, Planning, Executing, Controlling & Monitoring and Closing phases) will also be reviewed to help students understand both the application and implication concepts tested in the exams. Additionally, students will participate in practice exam sessions for CAPM and PMP aimed at providing for self – assessment of exam readiness.

PMP 698: Master Thesis I (3)

Prerequisite: Completion of at least five Core courses and academic advisor's approval

The thesis work can comprise basic research or a practical project. Students are encouraged to start their thesis work as early as possible. For Thesis I, the student will be asked to work with a faculty advisor to choose a suitable master's thesis topic and prepare a thesis proposal. The master's thesis project will be conducted over a period of two semesters.

PMP 699: Master Thesis II (3)

Prerequisite: PMP 698

This course is a continuation of Master's Thesis I. The thesis work can comprise the analysis and conclusion part of the research established in Master's Thesis I. In Thesis II, students complete the project and write the thesis.

PSYC 102: Introduction to Psychology (3)

Prerequisite: None

The purpose of this course is to introduce you to the fundamental principles of psychology, methodologies, and evolution of psychology. This course will help you understand humans' thoughts, feelings, and actions – Why are people the way that they are? Why do they do the things that they do? What can psychological science tell me about the world around me? And how can I use it to enrich my life and make the world a better place?

We will pursue answers to these core questions as we explore the science of behavior and mental life – from biological foundations to social and cultural influences on behavior. Topics include human behavior, personality, growth and development, moral development, cognition, memory, perception and sensation, states of consciousness, thinking and intelligence, and cultural factors shaping our way of being.

RLGN 111: World Religions (3)

Prerequisite: None

The purpose of the World Religions course is to explore the meaning of religion for humankind and the potential for religious beliefs to serve humanity at all levels – the individual, family, community, national, and global level. Religion is a core factor impacting society in economics, law, science, the arts, and for understanding politics at local, national, and global levels.

Part 1 of this course provides an overview of the teachings, historical development, and way of life for the five major world religions – Hinduism, Buddhism, Judaism, Christianity, and Islam. Following the focus of the *Invitation to World Religions* text, this course seeks to address three primary questions for each of these major world religions:

1. What is ultimate reality?
2. How should we live in this world?
3. What is our ultimate purpose?

In Part 2 of this course, we begin to take a deeper look at the beliefs and practices of the five major world religions to further develop understanding of the connections between the external/outer values of religion and the spiritual/inner values. The commitment of this approach is to further develop tolerance, understanding, and valuing of diversity across religions.

Part 3 of this course explores how our religious beliefs can serve us at all levels of society and concludes with an inquiry about the possibilities of religion to address the challenges of humanity in the world today.

SOCI 101: Sociology (3)

Prerequisite: None

The purpose of this course is to develop your understanding of socialization, culture, public policy, global inequalities, social issues, and social problems and how they impact our various communities. This course will introduce you to the origins of sociology as a discipline, the major sociological theories, and sociological concepts to enhance your understanding of sociology as a discipline. It will also expand on current social issues and social problems in our communities and create a desire in you to develop a moral compass for becoming a responsible steward of our society.

The course concludes by further developing your capacity to promote constructive social change at the local, national, regional, and global levels. To achieve these outcomes, we have organized the course into three parts:

- Part 1 lays a foundation by developing our understanding of society itself – its features and their interrelationships. In particular, we focus on two major aspects of social systems – social structure and culture.
- Part 2 directs our attention to social problems such as crime, poverty, political corruption, inequality, racism, gender bias, and other social concerns. We explore how a social problem becomes defined and seek to identify the systematic causes or sources of social problems.
- Part 3 focuses on social change including social movements, population change, and globalization. We address questions such as: What can be done to intervene in a social system? How do we generate positive social change? How do I increase my capacity to support positive change of social systems?

TLLP 250: Designing Your Career (3)

Prerequisite: None

The purpose of this course is to explore possibilities and build your capacities for career success – regardless of what you choose to do or the organizations you join. Over the next fifteen weeks, we will explore ideas, tools, and processes for designing a career where you can find purpose and meaning, and develop those capabilities that are critical for career success regardless of your work. As with the recommended (but not required) prerequisites, this course is built on the foundations of self-awareness and reflection as essential conditions for realizing your full potential in all domains of action and being. We urge you to focus on both conditions as you engage in each week's assigned activities.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from experiential exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

TLLP 275: Practices of Social Impact (3)

Prerequisite: None

The purpose of this course is to explore possibilities and build your capacity to have social impact through career activities – regardless of what you choose to do or the organizations you join. Over the next fifteen weeks, we will explore ideas, tools, and processes for creating social impact, help you find purpose and additional meaning for your career through social impact, and help develop those capabilities that make social impact possible. As with the recommended (but not required) prerequisites, this course is built on the foundations of self-awareness and reflection as essential conditions for realizing your full potential in all domains of action and being. We urge you to focus on both conditions as you engage in each week's assigned activities.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from experiential exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

TLLP 400: Models of Thinking (3)

Prerequisite: None

We spend a good part of our waking hours in the act of thinking, which could be described as private conversations with ourselves. Some are of value in leading us to effective action and well-being. Others become barriers to action and well-being. The purpose of this course is to introduce concepts, tools, and processes of thinking to help you take effective action and find your way forward without being overwhelmed by life's challenges. We will explore approaches to thinking developed by philosophers over many centuries and discuss lessons learned from everyday life in applying those approaches. This course will help you be more effective and efficient in finding solutions to the challenges and opportunities you encounter throughout life.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from experiential exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.

TLLP 425: Practices of Career Planning and Leadership (3)

Prerequisite: None

The purpose of this course is to provide concepts, tools, and processes to help you engage in career planning throughout your lifetime and prepare you for being a leader regardless of your roles and career path. The focus is on generating career options, determining priorities, setting goals, developing plans, and taking action – always keeping in mind that we live in a dynamic, complex, and evolving world. This ever-changing context of our lives requires us to continue to learn and redesign throughout our lives in support of our evolving values, beliefs, worldviews, and commitments as reflected in this quote:

“A well-designed life is a life that is generative – it is constantly creative, productive, changing, evolving, and there is always the possibility of surprise.” – Bill Burnett and Dave Evans, *Designing Your Life*.

This course is a participatory seminar. We will discuss assigned readings, audiovisual materials, and discoveries gleaned from experiential exercises. Participants are expected to carefully review readings before class and contribute actively in seminar discussions.