**Business Analytics, M.S.**

FOX SCHOOL OF BUSINESS AND MANAGEMENT (http://www.fox.temple.edu)

**About the Program**

**Admission Requirements and Deadlines**

**Application Deadline:**

APPLY ONLINE (http://fox.force.com/SiteLogin) to this Fox graduate program at http://fox.force.com/SiteLogin.

**Management Information Systems Courses**

**MIS 5001. Information Technology Management. 1 to 3 Credit Hour.**

Organizations that strategically select, manage, and deploy digital business models prosper in the global economy. Students will use systems and business process thinking to create and analyze strategies for technology-enabled organizational and industry transformation. They will propose innovative solutions for new and existing business initiatives to leverage enterprise, consumer, and social technologies.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate

**College Restrictions:** Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School

**Repeatability:** This course may not be repeated for additional credits.

**MIS 5101. Business Intelligence. 3 Credit Hours.**

Data is a core building block of modern organizations; transforming data into information and knowledge enables firms to compete effectively. In this course, students learn best practices for acquiring, assessing, and analyzing data to solve business problems. Students also learn the technologies that comprise an organization’s information infrastructure. Students gain hands-on experience with these concepts through case studies and exercises.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate

**College Restrictions:** Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School

**Repeatability:** This course may not be repeated for additional credits

**Pre-requisites:**

MIS 5001|Minimum Grade of B-|May not be taken concurrently.

**MIS 5102. Process Improvement and Innovation. 3 Credit Hours.**

An information system is only valuable to an organization when it enables and supports a useful business process. Students learn to assess, design, and analyze processes that foster innovation. Core concepts include designing effective solutions, identifying metrics for assessment, and communicating plans to management. Students apply these skills through analysis of business problems for actual firms.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate

**College Restrictions:** Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School

**Repeatability:** This course may not be repeated for additional credits

**Pre-requisites:**

MIS 5001|Minimum Grade of B-|May not be taken concurrently

OR MIS 5302|Minimum Grade of B-|May not be taken concurrently

OR MIS 5402|Minimum Grade of B-|May not be taken concurrently.

**MIS 5103. Network Architectures for Business. 3 Credit Hours.**

This course covers the information architecture of the internet-enabled organization, including the use and development of client server and distributed systems. It provides detailed analysis of networking and telecommunications, including data, voice, image, video, network hardware, and topology. Concepts, models, architectures, and standards for the design, implementation, integration, security, and management of distributed internet- and intranet-enabled systems and networks are discussed. The course provides an understanding of the role of the information architecture and distributed systems on organizational design and management strategy.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate

**Repeatability:** This course may not be repeated for additional credits

**Pre-requisites:**

MIS 5001|Minimum Grade of B-|May not be taken concurrently

OR MIS 5302|Minimum Grade of B-|May not be taken concurrently

OR MIS 5402|Minimum Grade of B-|May not be taken concurrently.

**MIS 5104. Network Centric Applica. 3 Credit Hours.**

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate

**Repeatability:** This course may not be repeated for additional credits.
MIS 5105. Emerging Technologies. 3 Credit Hours.
This seminar reviews emerging technologies that will prepare students to effectively leverage new technologies to create business opportunities through innovation. The specific topic of this course varies by semester to accommodate new trends and technologies.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5106. Object Oriented Computing. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5107. Knowledge Mgmt/Bus Intel. 3 Credit Hours.
This course reviews knowledge management principles and technologies focusing on business applications.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5108. Digital Business Strategy. 3 Credit Hours.
Information Technology leadership is a critical function in organizations. This course teaches the skills of effective technology strategists. Students develop the business case for new technology initiatives, evaluate the success of existing initiatives and develop plans for technology-enabled organizational change. Through a series of case study analyses, students develop technological and organizational skills required of IT leaders.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
MIS 5001|Minimum Grade of B-|May not be taken concurrently
OR MIS 5302|Minimum Grade of B-|May not be taken concurrently
OR MIS 5402|Minimum Grade of B-|May not be taken concurrently.

MIS 5109. User Interface Design. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5112. Business Design and Innovation. 3 Credit Hours.
Digital business opportunities are no longer limited to the technology itself; they also include the experiences and ecosystems around them. To succeed in this new economy, today's leaders require a broad set of skills that incorporate creative thinking and innovation. Students will learn the tools and methods of Business Design to address real-world business problems. They will apply design inquiry techniques to craft original solutions to a series of practical scenarios.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5121. Enterprise Resource Planning Systems. 3 Credit Hours.
This course introduces students to the essential concepts of an ERP. The course looks at how a business’ key transactions are executed and accounted for in an ERP. IS and accounting controls to assure confidentiality, integrity and authenticity are examined. Finally, the course looks at how transaction processing data is transformed into data for management analysis and legal entity reporting.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5122. Enterprise Architecture for IT Auditors. 3 Credit Hours.
This course surveys the technology concepts and components that are critical for the IT auditor to understand. It uses an enterprise architecture framework to explore issues of business process, business data, applications and the infrastructure that are necessary to run those applications.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5123. Business Essentials for IT Audits. 1 to 3 Credit Hour.
This course gives incoming students from technical disciplines the basic business background that they will need throughout the ITACS curriculum. Students will learn how to read basic financial statements, the components that make up a business model, how applications support both revenue generation and operations, and the role of a control environment. Topics include the income statement, balance sheet, cash flow statement, business model, value proposition, market segmentation, the sales process, business processes and controls.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5161. Inf Sys Applications-Org. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5162. Database Mgt Sys & Model. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
MIS 5163. Sys Anal/Rapid App Dev. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5164. Inf Tech Prin-Network-BS. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5170. Special Topics. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

MIS 5178. Inf Architect & Network. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5179. Inf Systems Mgt & Proces. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5182. Independent Study. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites:
MIS 5001|Minimum Grade of B-|May not be taken concurrently.

MIS 5190. Special Topics in MIS. 1 to 6 Credit Hour.
Special topics in current developments in the field of information systems are covered.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

MIS 5201. IT Audit Process. 3 Credit Hours.
This course introduces students to the essential concepts of IT auditing. Students will learn standards and guidelines for performing an IT audit. Topics will include concepts of internal controls. Students will learn to plan and manage an audit as well as how to report on evidence collected during the audit.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5202. IT Governance. 3 Credit Hours.
Understanding how IT organizations are structured and managed is essential to effective IT auditing. In this course students will learn how IT organizations are managed and the issues which make IT management so challenging. Students will learn how strategic planning is performed within IT organizations. A number of tools, techniques, and frameworks such as COBIT will be discussed which will help make the auditor effective in this environment.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5203. Systems and Infrastructure Lifecycle Management 1. 3 Credit Hours.
Examines how an organization builds an enterprise architecture within an environment of internal control. Topics cover include information system planning, management and usage, the development, acquisition and maintenance of these technologies and their impact on the organization's business processes.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5204. Systems and Infrastructure Lifecycle Management 2. 3 Credit Hours.
A closer examination of the controls needed during software development and the external acquisition of systems as well as the concept of application controls and how they are used.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.
Pre-requisites:
MIS 5203|Minimum Grade of B-|May not be taken concurrently.
MIS 5205. IT Service Delivery and Support. 3 Credit Hours.
Learn how the operational aspects of an IT organization deliver on the value proposition of the organization. Learn about the technical infrastructure and how this infrastructure provides a reliable and secure platform for applications. Learn about service center management and how these teams are utilized to deliver value to the organization.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5206. Protection of Information Assets. 3 Credit Hours.
Information is an organization's most precious asset. Inadvertent disclosure of sensitive information can have significant operational and financial impact on the organization. Loss of information or access to it can also have serious adverse impacts on the organization. In this course students learn the importance of managing the information assets of the organization including logical IT security, physical, and environmental security. Disaster recovery and mitigating risk through insurance are also discussed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5208. Data Analytics for IT Auditors. 3 Credit Hours.
MIS 5208 examines the emerging approach of continuous-audit. This approach relies heavily on data analytics to examine datasets produced by audit and security controls (for instance, network log files). Basic data analysis concepts are presented and then applied to security or audit problems. Audit specific tools like ACL will be used in addition to general tools like Excel.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5209. Securing Digital Infrastructure. 3 Credit Hours.
This course examines issues related to securing the components of a company's infrastructure. It reviews network, firewall, and basic operating system security issues. It presents the material theoretically and practically through many in class and homework exercises.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5211. Introduction to Ethical Hacking. 1.5 to 3 Credit Hour.
This course introduces students to the hacking strategies and tactics used by ethical or "White Hat" hackers. Methods of vulnerability exploitation to be used primarily in the process of Security Penetration will be explored in theory and in hands on exercises. The course will require simple programming using Open Source scripting languages and hacking tool kits. For that reason some knowledge of and experience with computer programming is required.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5212. Advanced Penetration Testing. 1.5 to 3 Credit Hour.
This course introduces students to Penetration Testing. Methods of vulnerability assessment and exploitation are examined as a means of identifying areas requiring improved security and recommended changes. The ethical, business governance and legal implications of penetration testing are examined. Specific techniques are examined in detail with the intent of giving the students a practical understanding of how Penetration Tests are conducted and laboratory-based experience in their actual conduct.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5213. Intrusion Detection & Response. 1.5 to 3 Credit Hour.
While all businesses work to be as secure as possible, it is agreed that no organization can be completely secure. Preventing attacks, quickly identifying successful attacks, detecting advanced persistent threats and monitoring systems activity in order to deter intrusions can result in significant business benefit. This course examines the variety of tools and techniques used to do this work.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5214. Security Architecture. 1.5 to 3 Credit Hour.
Examines the methodology by which an organization aligns its business strategy with its security operations. Both the current and desired future states of the business' security efforts are described so that resources can be directed to the security efforts most needed to support the business.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.
MIS 5282. Independent Study. 1 to 3 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites: 
MIS 5001|Minimum Grade of B-|May not be taken concurrently.

MIS 5287. Business Skills for the IT Auditor. 1 to 3 Credit Hour.
In this course students practice a variety of business skills that are necessary to be effective as an IT auditor. These skills include managerial communications and public speaking skills, interviewing skills, negotiation and personal selling skills, business writing, industrial psychology/behavioral science skills, project/time management and team building skills. The course is delivered through a series of workshops and simulations and include observations of business practices at host IT companies. The practicum will be scheduled for fall (1.5 credits) and spring (1.5 credits) semester to allow for optimal development of business skills.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 5301|Minimum Grade of B-|May be taken concurrently.

MIS 5301. Data Analytics for Management. 1.5 Credit Hour.
Organizations rely on data to make effective decisions, and managers must create a data-driven mindset that uses analytics to drive strategy. In this course, students learn how data is used to support organizational decision-making and solve business problems. Students learn the tools and techniques organizations use to assess, prepare, and analyze data. Students gain hands-on experience through case studies and exercises that require the use of a wide range of data and analytic skills, including statistics. The course includes a data analytics contest involving the analysis, interpretation and reasoning from data provided by corporate and nonprofit partners.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 5301|Minimum Grade of B-|May be taken concurrently.

MIS 5302. Managing Technology & Systems. 1.5 Credit Hour.
Organizations that strategically select, manage, and deploy digital business models prosper in the global economy. Students will use systems and business process thinking to create and analyze strategies for technology-enabled organizational and industry transformation. They will map systems and processes and propose innovative solutions for new and existing business initiatives to leverage enterprise, consumer, and social technologies.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits

MIS 5303. Design Inquiry and Research. .5 to 1.5 Credit Hours.
This course forms a foundation of approaches, skills and working methods to be applied throughout the MBA experience. This material is less about a distinct subject and more about a new perspective to effectively meet the business challenges of a rapidly changing, technologically driven global world. The course introduces the concept of Business Design, a holistic approach to management that combines the analytical strengths of traditional business education with the qualitative research, idea generation and the ability to synthesize information from design education. It is a balance of quantitative and qualitative thinking. Design Inquiry is a question-based framework to structure this problem solving process to create innovative solutions that are user-centered, socially, culturally and functionally meaningful and economically sustainable. The challenge associated with this course will be an enterprise risk assessment featuring a specific company and including interviews, tours and other primary (as well as secondary) data gathering principles and processes.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

MIS 5401. Data Analytics for Management. 1.5 Credit Hour.
Organizations rely on data to make effective decisions, and managers must create a data-driven mindset that uses analytics to drive strategy. In this course, students learn how data is used to support organizational decision-making and solve business problems. Students learn the tools and techniques organizations use to assess, prepare, and analyze data. Students gain hands-on experience through case studies and exercises that require the use of a wide range of data and analytic skills, including statistics. The course includes a data analytics contest involving the analysis, interpretation and reasoning from data provided by corporate and nonprofit partners.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 5401|Minimum Grade of B-|May be taken concurrently.
MIS 5402. Managing Technology & Systems. 1.5 Credit Hour.
Organizations that strategically select, manage, and deploy digital business models prosper in the global economy. Students will use systems and business process thinking to create and analyze strategies for technology-enabled organizational and industry transformation. They will map systems and processes and propose innovative solutions for new and existing business initiatives to leverage enterprise, consumer, and social technologies.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5403. Design Inquiry and Research. .5 to 1.5 Credit Hours.
This course forms a foundation of approaches, skills and working methods to be applied throughout the MBA experience. This material is less about a distinct subject and more about a new perspective to effectively meet the business challenges of a rapidly changing, technologically driven global world. The course introduces the concept of Business Design, a holistic approach to management that combines the analytical strengths of traditional business education with the qualitative research, idea generation and the ability to synthesize information from design education. It is a balance of quantitative and qualitative thinking. Design Inquiry is a question-based framework to structure this problem solving process to create innovative solutions that are user-centered, socially, culturally and functionally meaningful and economically sustainable. The challenge associated with this course will be an enterprise risk assessment featuring a specific company and including interviews, tours and other primary (as well as secondary) data gathering principles and processes.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

MIS 5601. Database Analytics. 1.5 to 3 Credit Hour.
This course provides a foundation for, and practice in, designing database systems and analyzing business data to enhance firm competitiveness. Concepts introduced in this course aim to develop an understanding of the different types of business data, various analytical approaches, and application of these approaches to solve business problems. Students will have hands-on experience with current, cutting-edge tools such as MySQL and SAS Enterprise Miner.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

MIS 5602. Applied Predictive Analytics. 1.5 to 3 Credit Hour.
Students will learn how to select relevant variables for analysis, apply the appropriate analytic technique, and interpret the practical implications of the results. Topics also include unstructured "big" data, sentiment analysis, and articulating results to a business audience. Students will have hands-on experience with current, cutting-edge tools such as SAS Enterprise Miner. This course will cover advanced topics needed to resolve more complicated business problems including but not limited to data cleansing and reporting. The foundation, set in MIS 5101, will be strengthened and expanded with more concepts and applications appropriate for solving more challenging business problems and effectively communicating and presenting the output needed to resolve the problem.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

MIS 5603. Social Media Innovation. 1.5 to 3 Credit Hour.
This course prepares students to strategically deploy social media solutions to support enterprise innovation. It covers key concepts and principles related to new business models supported by innovative use of Web 2.0 and social media. Through a combination of readings, discussions, presentations, and hands-on projects, we examine (i) the organizational use of key media technologies such as photo and website editing, blogs, web analytics, and search engine optimization, (ii) the business models underlying successful innovative new media organizations including Wikipedia, Craigslist, YouTube, and Facebook, and (iii) the role of centralized, decentralized, and crowdsourced information resources in online media innovation.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

MIS 5651. Digital Innovation in Marketing Capstone. 3 Credit Hours.
In this course students are given the opportunity to demonstrate the capabilities they have developed in other portions of the program. This course makes extensive use of case studies and role playing exercises, and/or real world projects. The objective of this course is to expose students to each of the domains covered in the curriculum. Sample contexts for these case studies/projects will be designing and measuring the efficacy of a web marketing strategy across multiple channels, evaluating the suitability for a new digital marketing technology such as mobile apps, portfolio management of digital marketing assets such as mobile apps, websites, social media and others.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5801. Managing Information. 2 to 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
MIS 5882. Independent Study. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites:
MIS 5001 [Minimum Grade of B-] [May not be taken concurrently].

MIS 5890. Special Topics. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

MIS 5901. Capstone in Information Technology. 3 Credit Hours.
Open only to M.S. in MIS students who must have completed all 4 core courses and 2 electives. For this capstone experience, students select a topic in their area of interest and write a research paper or implement an information system.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 5902. IT Auditing Capstone. 3 Credit Hours.
In this course students are given the opportunity to demonstrate the capabilities they have developed in other portions of the program. This course makes extensive use of case studies and role playing exercises. Students will explore a comprehensive case study which exposes them to each of the domains covered in the curriculum.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 5903. Cyber Security Capstone. 3 Credit Hours.
This is the final course in the ITACS cyber security track. The course has two purposes. First, it reviews all of the topics covered in earlier courses and further prepares the students for the SSCP exam. Second, it requires students to integrate what they have learned and research an emerging topic in the field of IT assurance.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 9001. Qual & Interpret Meth-IS. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 9002. Inf Sys Found & Theory. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MIS 9003. Foundations of Electronic Commerce Research. 3 Credit Hours.
This course offers an overview of electronic commerce research in the domain of Information Systems (IS). An impressive body of work on electronic commerce has developed over the last two decades in IS research, and this course aims at reviewing and integrating this large body of research toward identifying gaps in the literature and proposing new opportunities for research that students can pursue as part of independent research projects. This course overviews the electronic commerce literature in IS research under a framework based on the main entities involved in electronic commerce - businesses and consumers that interact with the aid of Internet technologies, resulting in three broad research areas - (1) Business to Consumer (B2C), (2) Consumer to Consumer (C2C), and (3) Business to Business (B2B). These three broad research areas are further categorized into sixteen specialized topics and sub-areas, which help summarize the literature and integrate the body of work.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MIS 9004. Adv Research Methods-IS. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
MIS 9011. Proseminar in Management Information Systems. 1 to 3 Credit Hour.
This course is required for all first year PhD in Business Administration - MIS students. It offers an overview of electronic commerce research in the domain of Information Systems (IS) under a framework based on the main entities involved in electronic commerce - businesses and consumers that interact with the aid of Internet technologies, resulting in three broad research areas - (1) Business to Consumer (B2C), (2) Consumer to Consumer (C2C), and (3) Business to Business (B2B). These three broad research areas are further categorized into sixteen specialized topics and sub-areas, which help summarize the literature and integrate the body of work. An impressive body of work on electronic commerce has developed over the last two decades in IS research, and this course aims at reviewing and integrating this large body of research toward identifying gaps in the literature and proposing new opportunities for research that students can pursue as part of independent research projects.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Business Administration
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School, Tourism & Hospitality Mngmnt
Repeatability: This course may be repeated for additional credit.

MIS 9090. Contemp Topics & Res-IS. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

MIS 9183. Directed Study in MIS. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

Marketing Courses
MKTG 5001. Marketing Management/Strategy. 3 Credit Hours.
This course is designed to provide students with an understanding of how firms develop marketing strategies to create and manage the creation of meaningful offers that are valued by consumers for the purpose of developing and maintaining customer relationships. Initially, we will address the evolution of market systems at the macroeconomic level and the role that marketing plays in bridging the gap between the production and consumption sectors of the economy. Subsequently, we will explore how firms develop strategies to create customer value through product management, pricing, marketing channels, supply chain management, customer relationship management and communications directed to buyers and also develop an understanding of how buyers acquire, consume and dispose of these goods and services.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 5101. Consumer and Buyer Behavior. 3 Credit Hours.
Use of concepts from the behavioral sciences for identifying market segments, predicting customer response to alternative marketing strategies.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently).

MKTG 5102. Marketing Communications. 3 Credit Hours.
Marketing communications as part of a firm's marketing mix. Dissemination of information is considered through advertising and other forms of communicating demand-influencing ideas.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently).
MKTG 5103. Marketing Research: Techniques and Application. 3 Credit Hours.
Basic approaches to planning, collecting, analyzing, and communicating information from the marketplace. Techniques and applications for specific
marketing areas.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently)
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 5001|Minimum Grade of B-|May not be taken concurrently
OR (MIS 5401|Minimum Grade of B-|May not be taken concurrently
AND STAT 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND STAT 5301|Minimum Grade of B-|May not be taken concurrently)).

MKTG 5104. Managerial Decision Strategies in Marketing. 3 Credit Hours.
Capstone course in marketing emphasizing strategic aspects of decision making in a marketing environment. Decision theory and quantitative methods
illustrated in considering alternatives when formulating strategic plans. Case studies used.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently)
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently).

MKTG 5105. Electronic Commerce. 3 Credit Hours.
The principal focus of this course will be on understanding the marketing implications of E-Commerce. In other words, this course is not so much about
learning HTML or JavaScript but looking at E-Commerce from a manager's viewpoint. Students enrolled in this course will learn about how Internet
marketing is different from traditional marketing, as well as what this means for traditional concepts like marketing mix, gaining customer loyalty, and
making profits. Issues such as E-business models, Internet advertising and pricing, and current state of affairs with respect to B2B auctions and Internet
law will also be touched upon in the sessions.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently)
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently).

MKTG 5106. Electronic Channels, Supply Chain, Logistics & Procurement. 3 Credit Hours.
Understanding new models of supply chain logistics and electronic channels as contrasted with traditional channels for creating value for ultimate
consumers and end users. Topics include: back-end fulfillment strategies, productivity, customer service, Internet warehousing and transportation
systems, order processing, transactions costs efficiency, the role of infomediaries and interorganizational relationships, the use of the internet in
customer service, and the role of the internet in the development of procurement strategies, customer oriented shipping tracing and tracking, claims
processing and settlements, the management of reverse logistics channels, and in materials handling.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently)
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently)
AND (MIS 5001|Minimum Grade of B-|May not be taken concurrently
OR M5 5402|Minimum Grade of B-|May not be taken concurrently
OR MIS 5302|Minimum Grade of B-|May not be taken concurrently).
MKTG 5107. Product Management. 3 Credit Hours.
This course examines the analytical, decision making, and planning concepts and tools available to market, product, and brand managers. Specific decisions to be addressed include: product policy, policy formulation, the selection of product market strategies, new product development, product-line modification, and organizational implications. Emphasis is placed on discussion of cases and relevant readings. Because of the heavy emphasis on interaction, regular and frequent participation will be expected.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently)
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently).

MKTG 5108. Data-Driven Marketing. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 5115. International Marketing. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 5115. Elec Supply Chain Mgt. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 5156. Mktg Mgt-Digital Mktpac. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 5170. Special Topics in Marketing. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently)
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently).

MKTG 5180. Special Topics in Marketing. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently)
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently).

MKTG 5182. Independent Study. 1 to 6 Credit Hour.
Supervised individual reading and research projects.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently)
OR (MKTG 5301|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5302|Minimum Grade of B-|May not be taken concurrently).
MKTG 5190. Special Topics in Marketing. 1 to 6 Credit Hour.
Special topics courses analyze emerging issues or specialized content that are not covered in regular semester courses.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites:
MKTG 5001 | Minimum Grade of B- | May not be taken concurrently
OR (MKTG 5401 | Minimum Grade of B- | May not be taken concurrently
AND MKTG 5402 | Minimum Grade of B- | May not be taken concurrently)
OR (MKTG 5301 | Minimum Grade of B- | May not be taken concurrently
AND MKTG 5302 | Minimum Grade of B- | May not be taken concurrently).

MKTG 5282. Independent Study. 1 to 3 Credit Hour.
Special study is undertaken in a particular aspect of marketing, under the direct supervision of an appropriate graduate faculty member. No more than six semester hours of independent study may be counted toward degree requirements.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites:
MKTG 5001 | Minimum Grade of B- | May not be taken concurrently
OR (MKTG 5401 | Minimum Grade of B- | May not be taken concurrently
AND MKTG 5402 | Minimum Grade of B- | May not be taken concurrently)
OR (MKTG 5301 | Minimum Grade of B- | May not be taken concurrently
AND MKTG 5302 | Minimum Grade of B- | May not be taken concurrently).

MKTG 5301. Market Analysis & Management. 1.5 Credit Hour.
This course is designed to provide students with an introduction to marketing theory, strategies and practice. Through this course students will learn to conduct market research, analyze research data, assess market opportunities, and generate effective conclusions. These objectives are accomplished by combining readings, lectures, workshops, business analysis, coaching from industry advisors and professors, and commercial grade work on a consulting project for an external client.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Co-requisites: MKTG 5302
Repeatability: This course may not be repeated for additional credits.
Pre-requisites:
(STAT 5301 | Minimum Grade of B- | May not be taken concurrently)
AND (MIS 5301 | Minimum Grade of B- | May not be taken concurrently).

MKTG 5302. Marketing Strategy & Planning. 1.5 Credit Hour.
Through this course, students will set clear marketing objectives; integrate marketing strategy components to achieve those objectives; develop a branding, messaging, and promotional plan; set a marketing strategy budget; and establish metrics to monitor the performance of a marketing strategy – all within the context of a rapidly evolving interactive, digital landscape. These objectives are accomplished by combining readings, lectures, workshops, business analysis, coaching from industry advisors and professors, and commercial grade work on a consulting project for an external client.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Co-requisites: MKTG 5301
Repeatability: This course may not be repeated for additional credits.

MKTG 5401. Market Analysis & Management. 1.5 Credit Hour.
This course is designed to provide students with an introduction to marketing theory, strategies and practice. Through this course students will learn to conduct market research, analyze research data, assess market opportunities, and generate effective conclusions. These objectives are accomplished by combining readings, lectures, workshops, business analysis, coaching from industry advisors and professors, and commercial grade work on a consulting project for an external client.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Co-requisites: MKTG 5402
Repeatability: This course may not be repeated for additional credits.
Pre-requisites:
(STAT 5301 | Minimum Grade of B- | May not be taken concurrently
OR STAT 5401 | Minimum Grade of B- | May not be taken concurrently)
AND (MIS 5301 | Minimum Grade of B- | May not be taken concurrently
OR MIS 5401 | Minimum Grade of B- | May not be taken concurrently).
MKTG 5402. Marketing Strategy & Planning. 1.5 Credit Hour.
Through this course, students will set clear marketing objectives; integrate marketing strategy components to achieve those objectives; develop a branding, messaging, and promotional plan; set a marketing strategy budget; and establish metrics to monitor the performance of a marketing strategy—all within the context of a rapidly evolving interactive, digital landscape. These objectives are accomplished by combining readings, lectures, workshops, business analysis, coaching from industry advisors and professors, and commercial grade work on a consulting project for an external client.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Co-requisites: MKTG 5401
Repeatability: This course may not be repeated for additional credits.

MKTG 5502. International Marketing Management. 3 Credit Hours.
Identifying and analyzing worldwide marketing opportunities, and generating strategies for capitalizing on them. Impact of environmental differences on marketing strategies and customer response.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

Pre-requisites:
MKTG 5001|Minimum Grade of B-|May not be taken concurrently
OR (MKTG 5401|Minimum Grade of B-|May not be taken concurrently
AND MKTG 5402|Minimum Grade of B-|May not be taken concurrently
OR MKTG 5301|Minimum Grade of B-|May not be taken concurrently
OR MKTG 5302|Minimum Grade of B-|May not be taken concurrently.

MKTG 5601. Database Marketing. 1.5 to 3 Credit Hour.
Information has become a valuable strategic asset and successful management of market information is essential for a firm's sustained profitability. This course provides the basics for data management that underlie organizations in the "Information Age." The course analyzes the strategic role played by information and develops the skills required to manage information by using databases. The course will emphasize marketing applications that illustrate how to organize and manage available information assets to address specific strategic objectives and needs.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

MKTG 5602. Quantitative Methods in Marketing. 1.5 to 3 Credit Hour.
This course will emphasize the use and practice of Marketing Metrics: the collection, analysis, and utilization of data for the development of marketing strategies. The course includes the study of data collection, warehousing technologies, marketing information systems, data mining, and customer relationship management. Particular attention is paid to interpretation of quantitative data (marketing dashboards).
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

MKTG 5603. Direct Marketing. 1.5 Credit Hour.
Students are introduced to the scope of direct marketing including mail order, lead generation, circulation, relationship/loyalty programs, store traffic/site traffic building, fund raising, pre-selling, selling (cross-selling as well as selling-up), post-selling and research. Initially, the course will address how direct marketing varies from other forms of marketing and where its practice is most appropriate. Subsequently, the course covers how firms develop direct marketing programs for purposes of direct sale, lead generation or traffic generation using various direct marketing media such as: direct mail, broadcast, print advertising, catalogs, co-ops, telemarketing, Internet, inserts, videos, e-mail and trade shows. Various approaches for stimulating action and the measurability and accountability of direct marketing and its relationship to the total marketing mix are stressed.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

MKTG 5604. Digital Marketing. 1.5 to 3 Credit Hour.
This course emphasizes the use and practice of direct marketing including mail order, lead generation, circulation, relationship/loyalty programs, store traffic/site traffic building, fund raising, pre-selling, selling (cross-selling as well as selling-up), post-selling and research. The course covers how firms develop direct marketing programs for purposes of direct sale, lead generation or traffic generation using various direct marketing media such as: direct mail, broadcast, print advertising, catalogs, co-ops, telemarketing, Internet, inserts, videos, e-mail and trade shows. Various approaches for stimulating action and the measurability and accountability of direct marketing and its relationship to the total marketing mix are stressed.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.
MKTG 5605. Digital Innovation in Product Management and Branding. 1.5 to 3 Credit Hour.
In this course we review concepts and principles related to building and maintaining a brand in the digital environment. Topics include developing a strategy for your brand, the content to support that strategy and then how to communicate that content. How do you manage your products and brand over time and what analytics are used to keep your strategy on-track. Finally, global and legal implications are considered.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MKTG 5606. Digital Innovation in Mobile Marketing and Communication. 1.5 to 3 Credit Hour.
In this course students will learn how to develop a mobile marketing strategy with the target audience in mind as well as how to effectively integrate that mobile marketing as a part of their overall brand and business strategy. They will then learn to convert that strategy into an effective campaign using the appropriate mobile tools. Lastly, they will learn how to track and measure the effectiveness of that campaign.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

MKTG 5801. Marketing Management in the Enterprise. 3 Credit Hours.
Limited to students matriculated in the Executive M.B.A. program. In this course, you'll develop a firmer grasp on the strategic aspects of marketing decisions within the context of the total enterprise. You'll also analyze marketing management practices, organization and decision processes through traditional and internet-based business case studies involving product development, segmentation, pricing, promotion, distribution and implementation.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 5882. Independent Study. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

MKTG 5890. Special Topics in Marketing. 1 to 6 Credit Hour.
Special topics courses analyze emerging issues or specialized content that are not covered in regular semester courses.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

MKTG 9001. Sem-Marketing Theory Dev. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 9002. Sem-Behavior Res-Mktg. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 9003. Sem-Quant Research-Mktg. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

MKTG 9011. Proseminar in Marketing. 1 to 3 Credit Hour.
The Marketing PhD Pro-seminar provides doctoral students with an opportunity to learn about the range of academic research in marketing, and about marketing academic careers. Through critiques of academic research articles and discussions with other students and multiple faculty members, students will gain insights into research process, and the expectations of the marketing academic community. The course assignments and discussions help to build student research capability, and support student development of a research paper proposal on a topic of the student's choice.
Field of Study Restrictions: Must be enrolled in one of the following Majors: Business Administration
Degree Restrictions: Must be enrolled in one of the following Degrees: Doctor of Philosophy
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School, Tourism & Hospitality Mngmnt
Repeatability: This course may be repeated for additional credit.

MKTG 9090. Sem-Sel Topics in Mktg. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

MKTG 9183. Directed Study in Marketing. 1 to 6 Credit Hour.
Directed Study in Marketing
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Statistics Courses

STAT 5001. Quantitative Methods for Business. 1 to 3 Credit Hour.
This course is designed to introduce you to contemporary elementary applied statistics and to provide you with an appreciation for the uses of statistics in business, economics, everyday life, as well as hands-on capabilities needed in your later coursework and professional employment.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may not be repeated for additional credits.

STAT 5002. Introduction to Biostatistics. 3 Credit Hours.
Topics cover statistical methods and concepts with special emphasis on applications in health and biological sciences.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

STAT 5170. Special Topics. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

STAT 5182. Independent Study. 1 to 6 Credit Hour.
Special study in a particular aspect of statistics under the direct supervision of an appropriate graduate faculty member. No more than six semester hours of independent study may be counted toward degree requirements.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

STAT 5190. Special Topics - Stat. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

STAT 5282. Independent Study. 1 to 3 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Pre-requisites:
STAT 5001|Minimum Grade of B-|May not be taken concurrently.

STAT 5301. Foundations for Data Analytics. 1.5 Credit Hour.
Statistical analytics provide a competitive edge to organizations by extracting information from data and helping understand risky and random events. Statistical analytics are an important part of the decision making process, allowing managers to make informed strategic decisions that combine executive intuition with a thorough understanding of data. Using statistical methods to extract information from data, and providing an indication of the quality of that information, adds value to an organization’s strategic decision making process. This course is designed to develop strong skills in data analysis, modeling, and decision making under uncertainty. It is designed to train students to use valid inferences from data and make informed decisions. The topics covered in the course include data visualization, descriptive statistics, estimation, hypothesis testing, and regression analysis. This course emphasizes the applications of statistical analytic techniques through lectures, case analysis and computer exercises. Computations are facilitated using Excel, and students are expected to interpret and translate statistical results into a language understood by a non-technical audience.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Co-requisites: MIS 5301
Repeatability: This course may not be repeated for additional credits.

STAT 5401. Foundations for Data Analytics. 1.5 Credit Hour.
Statistical analytics provide a competitive edge to organizations by extracting information from data and helping understand risky and random events. Statistical analytics are an important part of the decision making process, allowing managers to make informed strategic decisions that combine executive intuition with a thorough understanding of data. Using statistical methods to extract information from data, and providing an indication of the quality of that information, adds value to an organization’s strategic decision making process. This course is designed to develop strong skills in data analysis, modeling, and decision making under uncertainty. It is designed to train students to use valid inferences from data and make informed decisions. The topics covered in the course include data visualization, descriptive statistics, estimation, hypothesis testing, and regression analysis. This course emphasizes the applications of statistical analytic techniques through lectures, case analysis and computer exercises. Computations are facilitated using Excel, and students are expected to interpret and translate statistical results into a language understood by a non-technical audience.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Co-requisites: MIS 5401
Repeatability: This course may not be repeated for additional credits.
STAT 5801. Statistical Analysis for Management. 3 Credit Hours.
In this course, you'll learn how to use statistics to help solve business problems throughout an enterprise. You'll examine case examples of statistical analysis in areas such as marketing, finance and management. You'll learn descriptive and inferential techniques such as regression analysis and how to analyze data and reach decisions, using statistical computer software and Excel.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits.

STAT 5802. Quantitative Techniques for Management. 3 Credit Hours.
In this course you'll apply advanced quantitative techniques for managerial decision-making such as forecasting, linear programming, simulation, decision analysis, Markov chains and game theory. You'll use customized software and Excel to analyze these models extensively and apply them to decisions regarding resource allocation and other managerial problems.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits.

STAT 5890. Special Topics. 1 to 6 Credit Hour.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may be repeated for additional credit.

STAT 8001. Probability and Statistics Theory I. 3 Credit Hours.
Topics include basic probability theory and combinatorial problems, generating functions, random variables, probability distributions, law of large numbers, and limit theorems.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits.

STAT 8002. Probability and Statistics Theory II. 3 Credit Hours.
A comprehensive development of the theory of statistics, including standard distributions, sampling distributions, general theory of estimation, testing of hypotheses, statistical decision theory, order statistics, linear statistical estimation.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits

**Pre-requisites:**
(STAT 8001|Minimum Grade of B-|May not be taken concurrently)
AND STAT 8002|Minimum Grade of B-|May not be taken concurrently).

STAT 8003. Statistical Methods I. 3 Credit Hours.
Introduction to applied statistics. Topics include data management, probability distributions, parameter estimation, hypothesis testing, sampling methodologies, graphical display, analysis of variance, and simple and multiple regression. Use of R, S-Plus and SAS statistical software.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits

**Pre-requisites:**
MATH 2031|Minimum Grade of B-|May not be taken concurrently.

STAT 8004. Statistical Methods II. 3 Credit Hours.
Design of experiments, analysis of discrete data, introduction to nonparametric methods, logistic regression, ARIMA time series analysis, bootstrapping, jackknife, robustness, and selected topics in multivariate analysis. Use of R, S-Plus and SAS statistical software.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits

**Pre-requisites:**
STAT 8003|Minimum Grade of B-|May not be taken concurrently.

STAT 8031. Probability and Large Sample Theory. 3 Credit Hours.
An advanced level theoretical course covering measure theoretic probability, some probability inequalities, statistical independence, strong and weak laws of large numbers, convergence in distribution, variance stabilizing transformations, characteristic functions and central limit theorem.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits

**Pre-requisites:**
STAT 8001|Minimum Grade of B|May not be taken concurrently.
STAT 8101. Stochastic Processes. 3 Credit Hours.
This is a first course in stochastic processes, with an emphasis on continuous-time models that support applications in financial mathematics and
derivative evaluation. The course covers: fundamentals of probability, limit theorems, conditional expectation, change of measures, Markov chains,
random walks, martingales, Brownian motion, the Ito integral, stochastic differential equations, the Black-Scholes model and its use in evaluating a
variety of financial derivatives.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
MATH 1031|Minimum Grade of B-|May not be taken concurrently
OR MATH 1041|Minimum Grade of B-|May not be taken concurrently
OR MATH 1931|Minimum Grade of B-|May not be taken concurrently
OR MATH 1941|Minimum Grade of B-|May not be taken concurrently
OR MATH 1042|Minimum Grade of B-|May not be taken concurrently
OR MATH 1942|Minimum Grade of B-|May not be taken concurrently.

STAT 8102. Statistical Methods III. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8004|Minimum Grade of B-|May not be taken concurrently.

STAT 8103. Sampling Theory. 3 Credit Hours.
Theory and application of sampling from finite populations. Topics include random, stratified, cluster, and systematic sampling; estimation of means and
variances; optimal allocation of resources; problems of nonsampling errors; and ratio and regression estimation.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8003|Minimum Grade of B-|May not be taken concurrently.

STAT 8104. Mathematics for Stat. 3 Credit Hours.
Vector spaces; linear independence of vectors and basis; matrices and algebraic operations on matrices; determinants; rank of a matrix; inverse
of nonsingular matrices; linear equations and their solutions; generalized inverse of a matrix; eigen values and vectors of matrices; diagonalization
theorems; quadratic forms and their reduction to sum of squares; Jacobians.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
MATH 2101|Minimum Grade of B-|May not be taken concurrently
OR MATH 2103|Minimum Grade of B-|May not be taken concurrently.

STAT 8105. Time Series Analysis I. 3 Credit Hours.
Theory and application of univariate time series analysis. Includes both time domain and frequency domain methods. Considers stationary and
nonstationary linear processes, time series model building, forecasting, unit root test, intervention models and outlier detection, spectral theory of
stationary processes, spectral windows, and estimation of spectrum.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8002|Minimum Grade of B-|May not be taken concurrently.

STAT 8106. Linear Models I. 3 Credit Hours.
Covers the basic theory and practice of generalized linear models (GLM), such as the logistic, Poisson and gamma regression, as well as models for
multilevel or longitudinal Gaussian responses, such as the hierarchical linear model and linear mixed model. The students will need to work with R and
SAS throughout the semester.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(STAT 8002|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8004|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8104|Minimum Grade of B-|May not be taken concurrently).
STAT 8107. Design of Experiments I. 3 Credit Hours.
Principles of experimental designs, completely randomized designs, multiple comparisons, randomized block design, latin square design, missing value problems, analysis of covariance, and factorial experiments.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8004|Minimum Grade of B-|May not be taken concurrently.

STAT 8108. Applied Multivariate Analysis I. 3 Credit Hours.
Multivariate normal distribution; marginal and conditional distributions; estimation of population mean vector and dispersion matrix; correlation, partial correlation, and multiple correlation coefficients; Hotelling’s T2; MANOVA; discriminant function; repeated measurements analysis; principal components and canonical correlation; factor analysis; and multidimensional scaling.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(STAT 8004|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8104|Minimum Grade of B-|May not be taken concurrently).

STAT 8109. Regression, Time Series, and Forecasting for Business Applications. 3 Credit Hours.
Intermediate level course that covers regression analysis, time series analysis, and forecasting. The course is application oriented and standard statistical packages such as MINITAB are introduced and extensively used.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 5001|Minimum Grade of B-|May not be taken concurrently.

STAT 8111. Survey Techniques for Business Applications. 3 Credit Hours.
Application oriented. A course dealing with statistical and nonstatistical aspects of organizing a sample survey. Included are discussions of objectives, measurement, sample selection, pilot testing, data collection, data editing, summarization and interpretation of results in addition to describing the various sampling schemes. Students may be required to plan and execute a survey.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 5001|Minimum Grade of B-|May not be taken concurrently.

STAT 8112. Statistical Methods for Business Research I. 3 Credit Hours.
Part I of a doctoral level, one-year sequence of courses for the PhD students in Business Administration program. The course covers a variety of statistical methods useful in business research, such as: multiple regression analysis, ANOVA, linear models, analysis of covariance, logistic regression, principal component analysis, exploratory factor analysis and canonical correlation analysis. Emphases are placed on rationales, assumptions, techniques, and interpretation of results from computer packages. Relevant mathematical results will be presented, but proofs or abstract arguments shall be avoided. The lectures cover computer usages, such as R and/or SAS, and the students are expected to work with SAS (or equivalent packages) throughout the semester.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 2101|Minimum Grade of B-|May not be taken concurrently
OR STAT 2901|Minimum Grade of B-|May not be taken concurrently
OR STAT 2103|Minimum Grade of B-|May not be taken concurrently
OR STAT 2903|Minimum Grade of B-|May not be taken concurrently
OR MATH 2031|Minimum Grade of B-|May not be taken concurrently
OR MATH 3032|Minimum Grade of B-|May not be taken concurrently.

STAT 8113. Statistical Methods for Business Research II. 3 Credit Hours.
Part II of a doctoral level, one-year sequence of courses for the PhD students in Business Administration program. Topics covered in this course are: discriminant analysis, confirmatory factor analysis and structural equations modeling, time-series intervention analysis, survival (event history) analysis, MANOVA, multivariate profile analysis, hierarchical linear models (HLM), linear mixed models (LMM) for multilevel data.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8112|Minimum Grade of B-|May not be taken concurrently.

STAT 8114. Survival Analysis I. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
STAT 8115. Nonparametric Methods. 3 Credit Hours.
A thorough course in nonparametric statistics. Estimation and testing of hypothesis when the function form of the population distribution function is not completely specified.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8002|Minimum Grade of B-|May not be taken concurrently.

STAT 8116. Categorical Data Analysis. 3 Credit Hours.
Sampling models and analyses for discrete data: Fisher's exact test; Logistic regression; ROC analysis; Log-linear models and Poisson regression; Conditional logistic regression; Cochran-Mantel-Haenszel test; Measures of agreement between observers; Quasi-independence; Multinomial logit models; Proportional odds model; Association models; generalized estimating equations (GEE); generalized linear mixed model (GLIMMIX); GSK models; Composite link functions. The students will need to work with R and SAS throughout the semester.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8002|Minimum Grade of B-|May not be taken concurrently.

STAT 8117. Clinical Trials. 3 Credit Hours.
Introduction to the special problems associated with medical trials on humans. Topics include randomization, sample-size determination, methods for early trial termination, and tests for superiority, equivalence, and non-inferiority. Also discussed are choice of endpoints, control, side effects, use of historical data, meta-analysis and ethics of experimentation on humans.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8002|Minimum Grade of B-|May not be taken concurrently
STAT 8004|Minimum Grade of B-|May not be taken concurrently.

STAT 8121. Statistical Computing. 3 Credit Hours.
Use of computers in the solution of statistical problems. Topics include: floating point architecture, random number generation, design of statistical software, computational linear algebra, numerical integration, optimization methods.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8004|Minimum Grade of B-|May not be taken concurrently.

STAT 8122. Advanced SAS Programming. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(MATH 1042|Minimum Grade of B-|May not be taken concurrently
OR MATH 1942|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8001|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8002|Minimum Grade of B-|May not be taken concurrently).

STAT 8123. Time Series Analysis and Forecasting. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(STAT 8002|Minimum Grade of B-|May not be taken concurrently
OR STAT 8101|Minimum Grade of B-|May not be taken concurrently)
AND (ECON 8009|Minimum Grade of B-|May not be taken concurrently)
AND (MATH 3032|Minimum Grade of B-|May not be taken concurrently).

STAT 9001. Advanced Statistical Inference I. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(MATH 1042|Minimum Grade of B-|May not be taken concurrently
OR MATH 1942|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8001|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8002|Minimum Grade of B-|May not be taken concurrently).
STAT 9002. Advanced Statistical Inference II. 3 Credit Hours.
Asymptotic Tests, Multiple Hypotheses Testing.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

STAT 9090. Special Topics. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
College Restrictions: Must be enrolled in one of the following Colleges: Business & Mngmnt, Fox School
Repeatability: This course may be repeated for additional credit.

STAT 9101. Time Series Analysis II. 3 Credit Hours.
Theory and application of multiple time series analysis and special topics. Covers transfer function models, time series regression with autocorrelated
errors, ARCH and GARCH models, vector time series models, cointegration, state space models, long memory processes and nonlinear processes, time
series aggregation and disaggregation.
Level Registration Restrictions: Must be enrolled in one of the followingLevels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8105\Minimum Grade of B-|May not be taken concurrently.

STAT 9103. Stat Lrng & Data Mining. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(STAT 8001|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8002|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8003|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8004|Minimum Grade of B-|May not be taken concurrently).

STAT 9106. Linear Models II. 3 Credit Hours.
Continuation of Stat 8106, covers the theory and practice of analyzing multivariate repeated/correlated non-Gaussian responses, with or without missing
observations. Missing at random (MAR) models; informative missingness; EM algorithm; multiple imputations; quasi-likelihood estimation; generalized
estimating equations (GEE); transition models; Gibbs sampling; Markov Chain Monte-Carlo (MCMC) technique. The students will need to work with R,
SAS and WinBugs throughout the semester.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8106\Minimum Grade of B-|May not be taken concurrently.

STAT 9107. Design of Experiments II. 3 Credit Hours.
Covers symmetric and asymmetrical factorial experiments, fractional replication, split plot design, balanced and partially balanced incomplete block
designs without and with recovery of interblock information and lattice designs.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8107\Minimum Grade of B-|May not be taken concurrently.

STAT 9108. Multivariate Analysis II. 3 Credit Hours.
A study of specialized topics in multivariate analysis.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(STAT 8002|Minimum Grade of B-|May not be taken concurrently)
AND (STAT 8108|Minimum Grade of B-|May not be taken concurrently).

STAT 9114. Survival Analysis II. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
STAT 8114\Minimum Grade of B-|May not be taken concurrently.
STAT 9116. Statistical Genetics: An Advanced Graduate Course. 3 Credit Hours.
An advanced level graduate course in statistical genetics covering the basic concepts of allele, gene, genotype, phenotype, Hardy-Weinberg equilibrium, linkage analysis, QTL mapping using marker analysis, functional mapping for longitudinal traits, analysis of ultra-high dimensional data, genome-wide association studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may not be repeated for additional credits

Pre-requisites:
(STAT 8001|Minimum Grade of B|May not be taken concurrently)
AND (STAT 8002|Minimum Grade of B|May not be taken concurrently)
AND (STAT 8003|Minimum Grade of B|May not be taken concurrently)
AND (STAT 8004|Minimum Grade of B|May not be taken concurrently).

STAT 9180. Seminar in New Topics in Statistics. 3 Credit Hours.
Special topics in Statistics.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may be repeated for additional credit.

STAT 9183. Directed Study in Statistics. 1 to 6 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may be repeated for additional credit.

STAT 9190. Seminar in New Topics in Statistics. 3 Credit Hours.
Special topics in Statistics.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may be repeated for additional credit.

STAT 9994. Preliminary Examination Preparation. 1 Credit Hour.
Preparation for preliminary examinations.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may be repeated for additional credit.

STAT 9998. Pre-Dissertation Research. 1 Credit Hour.
Proposal design. Registration required until approved proposal is on file at the Graduate School.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may be repeated for additional credit.

STAT 9999. Dissertation Research. 1 to 12 Credit Hour.
For students elevated to candidacy and doing their dissertation research. Registration required until successful defense and graduation.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Dissertation Writing Student

Repeatability: This course may be repeated for additional credit.