Management Information Systems (MIS)

Course information contained within the Bulletin is accurate at the time of publication in June 2025 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

MIS 0855. Data Science. 3 Credit Hours.
We are all drowning in data, and so is your future employer. Data pour in from sources as diverse as social media, customer loyalty programs, weather stations, smartphones, and credit card purchases. How can you make sense of it all? Those that can turn raw data into insight will be tomorrow's decision-makers; those that can solve problems and communicate using data will be tomorrow's leaders. This course will teach you how to harness the power of data by mastering the ways it is stored, organized, and analyzed to enable better decisions. You will get hands-on experience by solving problems using a variety of powerful, computer-based data tools virtually every organization uses. You will also learn to make more impactful and persuasive presentations by learning the key principles of presenting data visually. NOTE: This course fulfills a Science & Technology (GS) requirement for students under GenEd.

Course Attributes: GS

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

MIS 0955. Honors Data Science. 3 Credit Hours.
We are all drowning in data, and so is your future employer. Data pour in from sources as diverse as social media, customer loyalty programs, weather stations, smartphones, and credit card purchases. How can you make sense of it all? Those that can turn raw data into insight will be tomorrow's decision-makers; those that can solve problems and communicate using data will be tomorrow's leaders. This course will teach you how to harness the power of data by mastering the ways it is stored, organized, and analyzed to enable better decisions. You will get hands-on experience by solving problems using a variety of powerful, computer-based data tools virtually every organization uses. You will also learn to make more impactful and persuasive presentations by learning the key principles of presenting data visually. NOTE: This course fulfills a Science & Technology (GS) requirement for students under GenEd.

Course Attributes: GS, HO

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

MIS 1001. Professional Development in MIS 1. 0 Credit Hours.
The MIS department prioritizes the professional development of its students as high as the domain specific knowledge and skills students develop in many of its classes. This zero-credit, credit/no-credit, self-directed course challenges students to complete a portfolio of professional development activities which prepare students to be valued contributors and leaders in industry after they graduate. Students will select and complete activities from a list of activities provided by the MIS department so no two students will have the same portfolio of accomplishments. Progression of the student's professional development journey will be measured with the PRO Points system and grades (credit/no-credit) for this course will be calculated based on the number of PRO Points the student has earned to date.

Repeatability: This course may be repeated for additional credit.

MIS 2001. Professional Development in MIS 2. 0 Credit Hours.
The MIS department prioritizes the professional development of its students as high as the domain specific knowledge and skills students develop in many of its classes. This zero-credit, credit/no-credit, self-directed course challenges students to complete a portfolio of professional development activities which prepare students to be valued contributors and leaders in industry after they graduate. Students will select and complete activities from a list of activities provided by the MIS department so no two students will have the same portfolio of accomplishments. Progression of the student's professional development journey will be measured with the PRO Points system and grades (credit/no-credit) for this course will be calculated based on the number of PRO Points the student has earned to date.

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of CR in MIS 1001.

MIS 2101. Digital Systems. 3 Credit Hours.
Learn the role of information systems and digital platforms in business and how digital products are conceived, designed, secured and deployed. Understand component-based software architectures and APIs. Build simple software applications.

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

MIS 2402. Web Application Development. 3 Credit Hours.
Create web-based applications that carry out a business process and integrate web-based services. Learn loops, arrays, conditional statements, data validation, responsive web design, and making API calls.

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

Pre-requisites: Minimum grade of C in (MIS 2101, MIS 2901, 'Y' in CRMI01, or 'Y' in CRMI04) and (MIS 2502 (may be taken concurrently) or 'Y' in CRMI03)

MIS 2502. Data and Analytics. 3 Credit Hours.
Navigate and query relational and NoSQL databases to support applications. Combine multiple sources of data using extract, transform, load for data cleansing. Discover insights from data using analytics software.

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

Pre-requisites: Minimum grade of C in (MIS 2101, MIS 2901, 'Y' in CRMI01, or 'Y' in CRMI04)

MIS 2901. Honors Digital Systems. 3 Credit Hours.
Learn the role of information systems and digital platforms in business and how digital products are conceived, designed, secured and deployed. Understand component-based software architectures and APIs. Build simple software applications.

Course Attributes: HO

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

MIS 3001. Professional Development in MIS 3. 0 Credit Hours.
The MIS department prioritizes the professional development of its students as high as the domain specific knowledge and skills students develop in many of its classes. This zero-credit, credit/no-credit, self-directed course challenges students to complete a portfolio of professional development activities which prepare students to be valued contributors and leaders in industry after they graduate. Students will select and complete activities from a list of activities provided by the MIS department so no two students will have the same portfolio of accomplishments. Progression of the student's professional development journey will be measured with the PRO Points system and grades (credit/no-credit) for this course will be calculated based on the number of PRO Points the student has earned to date.

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of CR in MIS 2001.

MIS 3406. Cloud Architecture. 3 Credit Hours.
Learn to design and build cloud-based network infrastructures for deploying applications securely at scale. Create and deploy a simple RESTful API for consumption with fault-tolerance.

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

Pre-requisites: Minimum grade of C in (MIS 2402 or 'Y' in CRMI02) and (MIS 2502 or 'Y' in CRMI03)

MIS 3502. Web Service Programming. 3 Credit Hours.
Create and deploy a complete, end-to-end web-based application. Design and build complex RESTful APIs. Create single-page applications that consume and integrate multiple APIs to create a seamless user experience.

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

Pre-requisites: Minimum grade of C in (MIS 3406 or 'Y' in CRMI05) and (MIS 3506 or 'Y' in CRMI07)

MIS 3504. Digital Design and Innovation. 3 Credit Hours.
Learn business process analysis including requirements analysis, feasibility, and data and process modeling. Develop the skills required to create innovative, technology enabled, corporate and consumer products and services. Apply information gathering techniques to elicit requirements. Compose business and technical requirements. Work in teams to design and recommend information systems solutions to improve or transform business processes. Lead the "make vs. buy" decisions. Justify proposed process improvements and proposed information systems solutions. Learn how to implement and negotiate changes to requirements.

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

Pre-requisites: Minimum grade of C in (MIS 2502 or 'Y' in CRMI03)

MIS 3505. Scripting for Data Science/Analytics. 3 Credit Hours.
This course gives students the applied, hands-on experience necessary to derive patterns and insight from data. Students will learn how to utilize technology to process data, visualize (plot) data, perform data assembly, data cleansing, data munging, and how to leverage statistical methods to gain insight from data. Students will have hands-on experience with current, cutting-edge tools. NOTE: Prior to Fall 2023, this course was titled "Applied Predictive Analytics."

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

MIS 3506. User Experience Design. 3 Credit Hours.
Describe, scope, and build a complete user experience. Understand the role of usability and design principles. Build innovative and pleasurable user interfaces that achieve human, social, organizational, and business model goals.

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

Pre-requisites: Minimum grade of C in (MIS 2402 or 'Y' in CRMI02)

MIS 3507. Defending Against Cyber Crime. 3 Credit Hours.
In this course you will learn the importance of Information Security through modern case studies and pragmatic approach to evaluating security as an executive.

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

Pre-requisites: Minimum grade of C in (MIS 2101, MIS 2901, 'Y' in CRMI01, or 'Y' in CRMI04)

MIS 3534. Strategic Management of Information Technology. 3 Credit Hours.
This course prepares students to be effective exploiters and managers of information technology. The management of information technology is addressed by considering the contemporary issues faced by general managers, e.g., globalization, time compression, and technology integration. Strategic approaches for dealing with these issues are explored. An integrative class project is used to pull together operational concepts from lower level information system and business courses as they apply to the management of information technology.

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

MIS 3535. Lead Global Digital Projects. 3 Credit Hours.
Learn how to lead, plan and manage global technology-enabled, process-centric information systems projects by focusing on initiating, planning, executing, controlling and closing projects in the context of topics such as integration, scope, timing, cost, quality, human resource, technology, communications, and risk and procurement. Explore the impact of the human element as it relates to the success and failure of information systems projects. Learn how to monitor project plans and communicate status reports to clients, and create and respond to request for proposals.

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

Pre-requisites: Minimum grade of C in (MIS 2101, MIS 2901, 'Y' in CRMI01, or 'Y' in CRMI04)

MIS 3536. Information Systems Innovation with AI. 3 Credit Hours.
This course provides the knowledge and skills to leverage emerging and innovative information technology to create business opportunities for both new entrepreneurial ventures and traditional firms. As we move into the AI/digital world, the ways by which companies create value is fundamentally shifting from products to experiences. The rapid convergence to digital technology provides new opportunities to offer novel products and services that did not exist before. In this course, students will be asked to think how entrepreneurs and companies produce radically new and innovative products and services in the increasingly digital world. The course focuses on how organizations can design novel and desirable products and services with a focus on leading edge technologies. Through applied projects, student teams will learn how to evaluate and apply new innovative technologies to create new digital experiences, products, and services.

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

MIS 3538. Social Media Innovation. 3 Credit Hours.
In this course we review concepts and principles related to new business models supported by innovative use of Web 2.0 and social media. Through a combination of readings, discussion, presentations, and hands-on projects we examine (i) the organizational use of key media technologies such as web sites, 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 crowd-sourced information resources in online media innovation.

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

MIS 3580. Special Topics. 3 Credit Hours.

Special topics in current developments in the field of information systems.

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of C in (MIS 2101, MIS 2901, 'Y' in CRMI01, or 'Y' in CRMI04)

MIS 3581. Co-operative Experience in Management Information Systems. 3 Credit Hours.

Students undertake a research project that integrates their current work experience with their classroom experience at Temple University. The results are reported in a series of status reports, blogs and a PowerPoint presentation prepared under the supervision of a faculty member. NOTE: Arrangements are made through the Management Information Systems Department and this course is open to ALL Fox business students. A 2.7 cumulative GPA or higher is recommended. http://ibit.temple.edu/industryexperience/

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of C in (MIS 2101, MIS 2901, 'Y' in CRMI01, or 'Y' in CRMI04)

MIS 3582. Independent Study. 1 to 6 Credit Hour.

Students will prepare research papers under supervision of a faculty member. NOTE: None of the required MIS courses can be taken as an independent study.

Repeatability: This course may be repeated for additional credit.

MIS 3682. Independent Study. 1 to 6 Credit Hour.

Students will prepare research papers under supervision of a faculty member. NOTE: None of the required MIS courses can be taken as an independent study.

Repeatability: This course may be repeated for additional credit.

MIS 4001. Professional Development in MIS 4. 0 Credit Hours.

The MIS department prioritizes the professional development of its students as high as the domain specific knowledge and skills students develop in many of its classes. This zero-credit, credit/no-credit, self-directed course challenges students to complete a portfolio of professional development activities which prepare students to be valued contributors and leaders in industry after they graduate. Students will select and complete activities from a list of activities provided by the MIS department so no two students will have the same portfolio of accomplishments. Progression of the student's professional development journey will be measured with the PRO Points system and grades (credit/no-credit) for this course will be calculated based on the number of PRO Points the student has earned to date.

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of CR in MIS 3001.

MIS 4596. Managing Enterprise Cybersecurity. 3 Credit Hours.

Learn how to secure systems and the enterprise using cryptography, authentication, and ethical hacking. In this writing-intensive course for MIS, you will also identify and communicate cybersecurity risks facing businesses through risk assessment reports that support management decisions.

Course Attributes: WI

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

Pre-requisites: Minimum grade of C- (except where noted) in (MIS 3406 (C or higher) or 'Y' in CRMI05) and (BA 2196 or BA 2996)