

ISOL 533 Information Security and Risk Management (3 hours)

The course provides a methodology to identify an institution's information technology assets, the proper way to determine the necessary level of protection required, and techniques for developing budgets for security implementations.

ISOL 534 Application Security (3 hours)

This course discusses methods to increase the security of application development and thwart attacker attempts to manipulate code. It also explores the software lifecycle and change control to reduce the probability of poorly written applications that allows an attacker to exploit coding errors. Database development models will be introduced focusing on choosing the best model to increase security.

ISOL Cryptography (3 hours)

The course examines methods and techniques for concealing data for security purposes. Topics covered will include cryptographic techniques, approaches and technologies.

ISOL 536 Security Architecture and Design (3 hours)

The course focuses on the concepts and standards for designing and implementing secure software systems.

ISOL 631 Operations Security (3 hours)

The course examines controls over personnel, hardware, software, and systems. It also covers possible abuse channels and proper countermeasures.

ISOL 632 Business Continuity Planning and Disaster Recovery Planning (3 hours)

The course examines the preservation of business activities when faced with disruptions or disasters. It involves the processes that are used to create a business continuity and disaster recovery plan and strategies for critical resource recovery.

ISOL 633 Legal Regulations, Compliance, and Investigation (3 hours)

The course examines computer crimes, laws and regulations. It includes techniques for investigating a crime, and gathering evidence. It also covers techniques for creating incident reports.

ISOL 634 Physical Security (3 hours)

The course examines risks, threats, and countermeasures to secure data, personnel and hardware. This involves facility creation and selection concerns, facility access control methods, and safety issues.

ISOL 690 Special Topics (3 hours)

The course presents special topics of interest in the domain of information security and information governance. Topic areas might include business continuity planning, legal and regulatory compliance issues and operations security.

ISOL 699 Info Security Project Info Systems Security (1 hour)

All students are required to demonstrate the ability to demonstrate the ability to clearly evaluate a particular information security need, identify potential solutions, evaluate the alternatives, and implement the best solution. This project will draw upon portfolio case assignments completed in previous courses to produce a complete solution for the assigned problem. It will be evaluated using the same rubric that was used to assess the individual course portfolio assignments. Credit, 1 hr.

ITS 530 Analyzing and Visualizing Data (3 hours)

This course is intended to introduce students to modern programs and technologies that are useful for organizing, manipulating, analyzing, and visualizing data. We start with an overview of the R language, which will become the foundation for your work in this class. Then we'll move on to other useful tools, including working with regular expressions, basic UNIX tools, XML, and SQL.

ITS 531 Business Intelligence (3 hours)

This course covers theories and applications of business analytics. The focus is on extracting business intelligence from firms' business data for various applications, including (but not limited to) customer segmentation, customer relationship management (CRM), personalization, online recommendation systems, web mining, and product assortment. The emphasis is placed on the 'know-how' -- knowing how to extract and apply business analytics to improve business decision-making.

ITS 532 Cloud Computing (3 hours)

This course is designed as a primer for cloud computing which many believe is the third major wave of computing, after mainframe and client-server computing. The course examines this technology from a business perspective. The course is designed to deliver a holistic and balanced view of business model, technological infrastructure, and security issues of cloud computing useful for the technology student to understand the business challenges and the business student to understand the technology challenges.

ITS 630 Organization Leadership and Decision Making (3 hours)

One of the most important skills a business leader needs to have concerning technology involves effective decision making and governance. This class will consist of a case study approach presenting different scenarios that require decisions to be made on technology issues that are relevant to today's business environment. Students will develop the skills for understanding the components and elements of these technology decisions, and assess associated risks. This course will draw upon a cross section of technology, finance, security, project management, leadership, and other aspects of effective decision making.

ITS 631 Operational Excellence (3 hours)

This course focuses on the skills & knowledge to guide an organization in its best use of technology to achieve its business goals and objectives. Although technical knowledge & skills are essential for technology professionals, this course focuses on the development of more general leadership skills. The ability to communicate with a broad set of stakeholders is essential & this course will offer exercises in skills such as negotiation, persuasion, agility, coaching & facilitation through case studies, role playing and simulation. Technology leaders must also understand the elements of developing & implementing an overall IT Strategy for the organization. This course will review the various levels of strategy & how strategy is implemented.

ITS 632 Introduction to Data Mining (3 hours)

The goal of the course is to introduce students to the current theories, practices, tools and techniques in data mining. Because many topics and concepts in data mining are learned most efficiently through hands-on work with data sets, we will spend time with software analyzing and mining data. The goal is to gain a better understanding of how data mining is applied and what is involved in data mining projects.

ITS 699 Information Technology Project (1 hour)*

Students are required to demonstrate ability to clearly evaluate a particular information technology need, identify potential solutions, evaluate the alternatives, and implement the best solution.

*Successful completion of 1 hour in INTR 599/799 will replace ITS 699

ITS 831 Information Technology Importance in Strategic Planning (3 hours)

This course focuses on the information technology leader's collaborative roles working with an organization's senior leadership, including aligning business strategy with IT strategy, acting as an equal contributor to the formation of organizational strategy, and integrating ethical policies and practices into an organization. Learners evaluate multidisciplinary research and practices related to leadership, organizational structures, and culture. Through the lens of complexity/chaos and change theories, learners analyze information technology's role in contributing to organizational resiliency.

ITS 832 Information Technology in a Global Economy (3 hours)

This course covers theory, development and impacts of national and international policy on IT. It explores how frequent shifts in public policy require IT businesses to adjust rapidly to adhere to regulations. Students will develop sophisticated strategies to be able to adapt to the changing environment including new technologies, global transfer and analysis.

ITS 833 Information Governance (3 hours)

This course presents key issues related to the discipline of information governance and how it is being applied to electronic document and records management, email, social media, cloud computing, mobile computing, and, in fact, the management and output of information organization-wide. IG leverages information technologies to enforce policies, procedures and controls to manage information risk in compliance with legal and litigation demands, external regulatory requirements, and internal governance objectives. Information Governance: Concepts, Strategies, and Best Practices reveals how, and why, to utilize IG and leverage information technologies to control, monitor, and enforce information access and security policies.

ITS 834 Emerging Threats and Countermeasures (3 hours)

This course covers security issues and current best practices in several applicative domains, ranging from the enterprise to the military. Discusses emerging security threats and available countermeasures with respect to the most recent network and computing technologies, including wireless networks, computer-controlled physical systems, and social networks. Concludes by presenting current trends and open problems.