INFORMATION SYSTEMS MANAGEMENT (ISM)

ISM 6001 Introduction to Data Analytics (1 Credit)
Develops understanding of data analytics and data science as a professional field and the Data Analytics in Business degree program. Topics include the role of data analytics in organizations, job duties and requirements in the field, overview of ethical and broader virtuous impact concerns associated with data analytics and data science, program design and expectations, software tools used in the program, and formation of student community. Typically offered: Autumn.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206001)

ISM 6002 Intro to Data Analytics (3 Credits)
Develops understanding of data analytics and data science as a professional field, introduces a Christian vision for data analytics field and business that emphasizes contributing to the flourishing of people and all creation and provides an overview of the Data Analytics in Business degree program. Topics include biblical the role of data analytics in organizations, job duties and theological perspectives on the purpose of data science requirements in the field, overview of ethical and business, principles of responsible management, and the role of broader virtuous impact concerns associated with data science in promoting a just, fair analytics and data science, program design and sustainable society, data science as vocation, job duties expectations, software tools used in the program, and requirements in the field, the information systems context for data analytics in organizations, degree program design and expectations, software tools used in the program, and the formation of student community. Typically offered: Autumn, Winter, Spring.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206002)

ISM 6211 Information Systems Management and Strategies (3 Credits)
Introduces the key concepts, systems, and strategies needed to manage information as a strategic resource. Explores the impact of managing information in an environment of constant technological and organizational change.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206211)

ISM 6212 Database Management and Warehousing (3 Credits)
Explores the various processes involved in the creation and management of organizational data. Topics include: developing sound entity-relationship data models, building normalized relational database management systems, and understanding how to move from an operational system to a decision support-based data warehouse.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206212)

ISM 6213 Enterprise Analysis and Integration (3 Credits)
Explores enterprise systems which integrate and adapt changing technology into the business environment-with effective internal responsiveness and external global reach. Addresses the need for a new kind of cooperation between business leaders and technical experts to enable business to compete in new ways on a global scale.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206213)

ISM 6225 Information: Ethics and the Common Good (2 Credits)
Brings the moral philosophy of Western and Eastern traditions into dialog with the biblical, theological groundwork addressed in BUS 6201. Emphasizes being fully human in a data-driven world and practical, real-life information and technology ethics scenarios. Topics include information security, privacy, transborder data flow, information ownership and responsibility, information as power, model bias and discrimination, ethical implications of AI, personal interactions and behavior in and out of the workplace, corporate social responsibility, the sustainable development goals, and ethical principles for moral leadership in information, data science, and technology. Typically offered: Winter.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206225)

ISM 6231 Information Systems Project Management (3 Credits)
Introduces the software development life cycle, techniques and tools used, and project management methods. Includes feasibility, analysis and requirements definition. Explores the provision of values-based leadership to IS project teams.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206231)

ISM 6245 Information Technology Infrastructure (3 Credits)
Explores the technologies needed to design, implement and manage effective computer networks. Includes local as well as mobile architectures and issues in e-business systems implementation.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206245)

ISM 6255 Knowledge Management and Business Intelligence (3 Credits)
Examines advanced database and knowledge management topics. Develops a method for migrating from relational operational systems to multidimensional decision support systems that supports business intelligence activities.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206255)

ISM 6313 Information Technology as a Strategic Advantage (3 Credits)
Examines the competitive advantage created by Information Technology. Includes the competitive landscape of e-business, adoption of new technologies, and appraisal of business models, strategies and value configurations.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206313)

ISM 6331 Information Systems Security (3 Credits)
Develops an understanding of information systems security issues. Addresses security policy creation, risk evaluation and implementation of security measures in organizations. Examines human and organizational aspects of security, privacy, ethical, and legal issues and requirements.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206331)

ISM 6332 Information Security Risk Management (3 Credits)
Focuses on approaches to identifying vulnerabilities in an information infrastructure and assessing the risk imposed by such vulnerabilities. Specific technologies and techniques used by hackers, spies and thieves to obtain access to sensitive, private information are discussed and explored. Includes security auditing, mapping of networks, patch management, security configuration management, and the use of automated tools for identifying and characterizing vulnerabilities. Physical security is evaluated. Methodologies and technologies for penetration testing of systems and networks are explored. The use of social engineering as a method for gaining information concerning and access to information infrastructures is evaluated. Strategies are developed for mitigation of risks prior to occurrence of a security-compromising incident.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206332)

ISM 6333 Cyber Security and Disaster Response (3 Credits)
Explores management of response to global society, organizational and individual cyber security incidents including identification, examination, and integration of diverse crisis and emergency management, disaster recovery, and organizational continuity management issues. Also covers incident tracking, patch management, and corrective responses to internal and external stakeholders.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206333)

ISM 6334 Cyber Crime Investigation and Digital Forensics (3 Credits)
Studies the processes and technologies used in the collection, preservation, and analysis of digital evidence in local, networked, andcloud environments and to prevent intrusions and attacks that threaten organizational data. Discussion covers validating data, reporting evidence, and preparing depositions, as well as recovering information from encrypted, obscured, or deleted sources. Topics also include emerging forensic issues in computer, peripheral, and mobile environments, ethics, relevant laws, regulations, policies, standards, human elements, hacker culture, and global implications.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206334)

ISM 6335 Information Technology Engineering Management (3 Credits)
Explores issues in software engineering such as development methodologies and standards, reusability, software quality assurance, CASE tools, software metrics, and tools to evaluate, control, and estimate the systems development function.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206335)

ISM 6336 Cyber Security, Business and Public Policy (3 Credits)
Cyber security challenges cross business, government, and individual spheres of life in the global economy. Neither business nor government can go it alone. The private sector develops and operates key capabilities and owns vital assets. Government deploys critical assets as well as legal and policy frameworks for individuals, businesses, national defense, and global interactions. Solutions require public and private as well as international cooperation, which can be demanding, costly and problematic. Students will learn analytical frameworks and tools to address a range of vital cyber security, policy, and human issues at the intersection of business, government, and economics.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206336)

ISM 6345 Distributed Applications (3 Credits)
Examines technical options in computer architectures, servers, operating systems, telecommunication and networks, as well as management and performance issues related to distributed client server, Web-based, cloud and mobile/wireless computing.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206345)

ISM 6353 Programming for Data Analytics: Python Machine Learning (3 Credits)
Explores advanced statistics and related statistical and data analytics programming languages and tools for data analytics in Python and machine learning algorithms.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206353)

ISM 6354 Programming for Data Analytics: R (3 Credits)
Explores statistical programming and modeling in R
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206354)

ISM 6358 Decision Making with Business Intelligence and Analytics (3 Credits)
Explores the use of statistics and decision-models to support data-driven decision-making using business intelligence and analytics information.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206358)

ISM 6359 Data Mining (3 Credits)
Examines the principles and practices of data mining, including data analytics and statistical analysis. Data mining is the computational process of discovering patterns in large data sets. Students will utilize tools and techniques to analyze large data sets in order to make sound business decisions.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206359)

ISM 6361 Data Visualization (3 Credits)
Examines the principles and practices of effective data visualization within a business context. Data visualization is the practice of translating information into a visual illustration. Students will utilize tools and techniques to visualize large data sets in order to make sound business decisions.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206361)

ISM 6362 Big Data and Cloud-Based Tools (3 Credits)
Explores cloud-based data management and analytics.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206362)

ISM 6900 Independent Study (1-6 Credit)
Provides the opportunity for a student to study a topic of special interest under faculty supervision.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206900)

ISM 6910 Seminar in Information Systems Management (1-6 Credit)
Explores variable topics related to effective management of information systems.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM%206910)

ISM 6930 Information Systems Management Consulting Practicum (1-6 Credit)
Provides an opportunity for students to gain practical experience in the information systems management field under instructor supervision.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM %206930)

ISM 6960 Master's Project (3 Credits)
Allows students to complete an independent project designed and driven by the student(s) to demonstrate proficiency in completing an information management project or performing research to further the state of the art in a particular area of ISM.
Course Schedule (https://catalog.spu.edu/course-search/?keyword=ISM %206960)