

# ITSV - INFO TECH SERVICE MGMT (ITSV)

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## Information Technology Service Management (ITSV)

### ITSV 101 Introduction to Information Technology Service Management

**Credit 1. 1 Lecture Hour.** Framework of processes and best practices used to manage a modern Information Technology (IT) service organization using specific IT service management principles promulgated via the ITIL framework; framework of best practices for delivering IT services; offers optional ITIL Foundations certification examination; passing of this industry standard credential assesses the student's understanding of IT service management practices and is foundational to understanding higher-level service management problems.

### ITSV 272 Foundations of Information Technology Management

**Credits 3. 3 Lecture Hours.** Overview of the theory and practices in the field of Information Technology Service Management; analysis of the foundations of alignment of IT services with organizational value goals, as well as basic understanding of computational thinking; fundamentals of IT management and its roles in today's organizations. **Prerequisites:** Grade of C or better in ISTV 101; sophomore classification.

### ITSV 274 Foundations of Networking

**Credits 3. 3 Lecture Hours. 1 Lab Hour.** Introduction to the fundamental building blocks that form a modern digital network, such as OSI model, protocols, topologies, hardware, and network operating systems; topics include in-depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, and security; preparation of the skills required to build a network from scratch and maintain, upgrade, and troubleshoot an existing network. **Prerequisites:** Grade of C or better in ITSV 272 or concurrent enrollment; approval of instructor; sophomore classification.

### ITSV 303 Unix System Administration Practices

**Credits 4. 3 Lecture Hours. 3 Lab Hours.** Development and system administration of the Unix operating system; technical alternatives for proactive and reactive maintenance of system health. **Prerequisites:** ITSV 272 and ITSV 274 with a grade of C or better; junior or senior classification or approval of instructor.

### ITSV 308 Cybersecurity and Digital Ethics

**Credits 3. 3 Lecture Hours.** Introduction to cybersecurity; analysis of threats and risks from the environment; development of appropriate strategies to mitigate impact; ethics of extraordinary administrative access; ethics of digital forensics and implications to society. **Prerequisites:** ITSV 272 and ITSV 274 with a grade of C or better; junior or senior classification or approval of instructor.

### ITSV 316 Database Systems Administration and Application

**Credits 4. 3 Lecture Hours. 3 Lab Hours.** Database administration and application use techniques; database structures, modeling, configuration, development, security, topologies and access; focus on system administration of Unix-based database systems. **Prerequisite:** ITSV 303 with a grade of C or better.

### ITSV 385 Information Technology Management and Service Delivery

**Credits 3. 3 Lecture Hours.** Study of the disciplines necessary to create an organization that consistently delivers business value through Information Technology (IT) services; examination of all types of interaction between an IT service provider and their customers, users, suppliers, and partners, including governance and risk management, organizational change, communication models, and business relationship management; examination of customer and user experience concepts through customer journey mapping and acquire practical and strategic approaches to aligning IT services to organizational values; examination of the practical skills necessary to create a "learning and improving" IT organization, with an emphasis on Agile and Lean methodologies, and the strategies needed to embed continual improvement at every layer of the organization. **Prerequisites:** Grade of C or better in ITSV 101 and ITSV 274; junior or senior classification; Information Technology Service Management major.

### ITSV 396 Foundations of Data Analytics in Information Technology Service Management

**Credits 3. 3 Lecture Hours.** Development of knowledge and skills towards gathering, describing, and analyzing data, and using advanced statistical tools to make decisions on information technology service management, organization operations, and risk management, etc; instruction in processes used to identify, locate, analyze, and report on data sources both qualitatively and quantitatively; exposure to hands-on practical experience of some advanced data analytic skills, including statistical inference, time series analysis, Monte Carlo simulation, and optimization models, etc. **Prerequisites:** Grade of C or better in STAT 201; junior classification; or approval of instructor.

### ITSV 412 Contemporary Issues in Technology Management

**Credits 3. 3 Lecture Hours.** Specific innovation or practices nascent to the professional information technology industry; discovery of practical applications and analytics of new innovation. **Prerequisites:** ITSV 272 and ITSV 274 with a grade of C or better; junior or senior classification.

## **ITSV 465 DevOps and High Velocity Service Delivery**

**Credits 4. 3 Lecture Hours. 2 Lab Hours.** A survey of concepts used to manage a modern Information Technology (IT) team in order to deliver IT services with scale and velocity; the ideas behind Lean and Agile organizations; systems automation and infrastructure as code; delivering modern IT services at scale using public cloud resources; how the IT unit relates to other groups within the organization (business relationship management and IT governance); practical application by creating an API-driven IT service; using continuous delivery tools to automate the build and delivery pipeline. **Prerequisite:** Grade of C or better in ITSV 274 and ITSV 303; junior or senior classification; Information Technology Service Management major.

## **ITSV 475 Information Technology Service Management Capstone I**

**Credits 4. 3 Lecture Hours. 2 Lab Hours.** Exploration of planning, management, and execution of IT projects; reviewing project management methodologies; examination of project artifacts, deliverables, scoping, scheduling, critical path, changes, retrospectives, conducting meetings; exploration of team development and constraint theory. **Prerequisites:** Grade of C or better in ITSV 303, ITSV 308, ITSV 316, and ITSV 385; grade of C or better in ITSV 396 and ITSV 412, or concurrent enrollment; ENGL 210; junior senior classification or approval of instructor; Information Technology Service Management majors.

## **ITSV 476 Information Technology Service Management Capstone II**

**Credits 3. 3 Lecture Hours.** Continuation of ITSV 475; execution of plan for capstone project; team experience in execution of project; sponsor interaction; peer review and feedback. **Prerequisites:** Grade of C or better in ITSV 475; grade of C or better in ITSV 465 or concurrent enrollment; or approval of the instructor.