

# COURSE DESCRIPTIONS

MS in Information Technology Leadership



## ITL 592: NEW STUDENT ORIENTATION

This orientation course introduces students to the University of San Diego and provides important information about the program. Throughout the orientation, students will learn to successfully navigate through the online learning environment and locate helpful resources. Students will practice completing tasks in the online learning environment as preparation for success in their graduate courses. This orientation course will be available to students as a reference tool throughout the entirety of your program

## ITL 501: FUNDAMENTALS FOR IT LEADERSHIP

Introduction to the IT Leadership program. Spotlights on fundamental financial management concepts: expense, capital, depreciation, budgets, etc. Understanding an organization's (your own or a customer's) mission, resources, and constraints. Introduction to communicating effectively with non-technical executive leadership: verbally, through email and other written forms of communication, and through presentations. IT governance models.

## ITL 502: PROJECT, VENDOR AND CONSTRUCTION MANAGEMENT

Project Management is the application of knowledge, skills, tools and techniques to project-oriented activities to meet project requirements. In today's fast paced business environment, now more than ever, organizations are faced with competing aggressively with one another, and so the demand for operational effectiveness and efficiency becomes essential to organizational success.

## PROGRAM DETAILS

- 30 units completed in 20 months
- Part-time program: 2 courses per term, 1 course at a time, 7 weeks for each course
- \$925 per unit
- New students start this program in Spring (January), Summer (May) or Fall (September)

## ITL 520: DATA AND VOICE NETWORKING

This course covers the role of wired and wireless networking in the architecture, deployment, and management of large-scale information technology environments. Includes advanced topics such as networking in cloud environments (e.g. AWS), edge data, and private wireless networks.

## ITL 525: SERVER OPERATIONS

Server operations with emphasis on design and deployment of large-scale computing environments using cloud services (e.g., Amazon Web Services, Google Cloud Platform, Microsoft Azure, Oracle Cloud). Topics include hyperconverged infrastructure and AWS networking. The course includes hands-on experience in a sandbox environment in which students configure a computing environment and deploy services using the infrastructure as code (IaC) paradigm.

## ITL 530: DEV OPS

The role of IT in the continuous process of software development (engineering), staging (QA), and production deployment (IT operations). Incorporates web development, app development and integration, and how to avoid a failed development project. Case study spotlight: USD MySDMobile app.

## ITL 535: CYBERSECURITY

This course will feature a comprehensive overview of concepts and tools essential to cybersecurity for IT professionals. Students will learn to view information as an asset to the organization, discover types of cybersecurity attacks, what threat actors are, the various roles of a cyber professional, and the beginnings of designing a cybersecurity program. Students will also identify different threats to information and the infrastructure and operators that support it. This course will also cover the risk management practices and principles that pertain to the cyber domain, as well as risk mitigation strategies, risk calculation, and communication and training for a cybersecurity program.

## ITL 540: SERVICE MANAGEMENT

IT Service Management (ITSM) is the set of activities by which IT organizations manage the end-to-end delivery of IT services to customers. ITL 540 covers the principles and practices of ITSM using industry standards and best practices, such as ITIL. Course topics include comprehensive coverage of Incident Management, Problem Management, Service Request Management, Change Control, Service Catalog Management, Portfolio Management, Service Level Management, Service Continuity Management (Disaster Recovery and Business Continuity), Knowledge Management, and IT Asset Management and Service Configuration Management. This course emphasizes developing practical skills and preparing graduates to effectively lead IT service teams.



## ITL 545: ENTERPRISE APPLICATIONS, DATA MANAGEMENT AND REPORTING

In today's competitive business environment, the ability to effectively manage enterprise applications and leverage data is a critical driver of organizational success. This course provides participants with a comprehensive understanding of how Enterprise Applications support business processes, enhance productivity, and drive innovation. The course addresses the full spectrum of Enterprise Data Management and Reporting with insights into designing and implementing Data Warehouses, Data governance, optimizing Business Intelligence tools, Advanced Analytics, and ensuring compliance with Data Security and Data privacy standards. The course also emphasizes the importance of seamless integration and interoperability between enterprise applications, in helping organizations streamline processes and enhance decision-making capabilities.

By the end of this course, participants will be well-equipped to harness the power of data and enterprise applications to achieve strategic objectives and drive enterprise-wide transformation.

## ITL 590: THE IT PROFESSION

This course focuses on a big-picture overview of the economic and social role of IT professionals. IT professionals are a strategic workforce in the US and in every other technologically developed economy but do not have a strong sense of collective professional identity. How have other technical professions (e.g. mechanical, chemical, and electrical engineers) historically developed a collective sense of professional identity and obligation, and in what ways are IT workers similar to and different from them? In what ways are IT professionals designers, and what does this imply about their broader social and professional obligations?

## ITL 595: CAPSTONE PROJECT

The program capstone focuses on developing a proposal for a significant IT infrastructure initiative, e.g., implementation of a new enterprise application, or migration of a service into the cloud. Students should demonstrate the ability to analyze the proposed course of action and communicate a clear recommendation to non-technical organizational leadership. Students should also demonstrate the ability to assess options and make sound recommendations in areas in which they are not themselves technical subject matter experts. The recommendation should reflect a deep understanding of the customer organization's mission, resources, and constraints.

## EXPERT FACULTY

Our MS-ITL faculty has extensive experience in the IT industry — and many continue to work in the field as well as in higher education. Every faculty member is dedicated to teaching the fundamental knowledge and leadership skills required for successful IT leadership. Together, they bring a diverse set of experiences, skills and backgrounds to the program.

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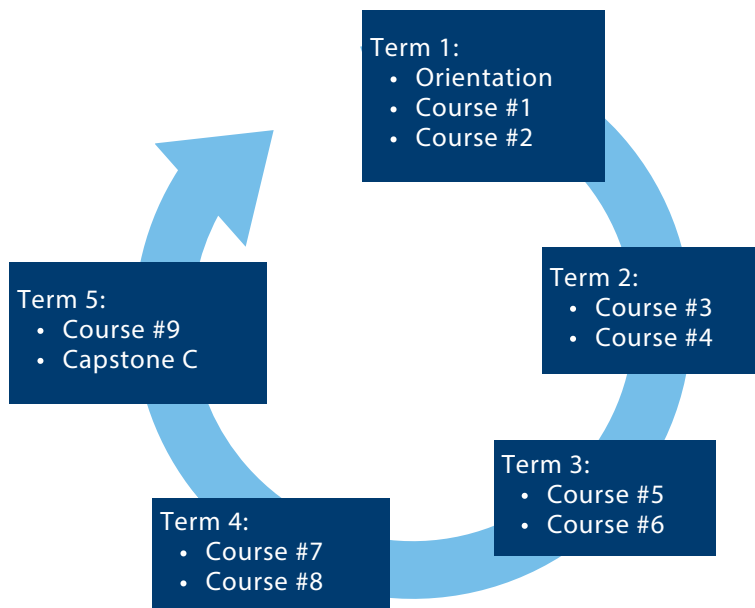
## UNDERSTANDING THE COURSE CAROUSEL

Courses in the MS-ITL program are scheduled on a carousel, which allows new students to start at any time. All students will take foundational courses during their first term, which will prepare them for the courses to follow.

The academic year is comprised of three 14-week terms, with breaks from one to three weeks between each term:

- Fall - courses start in August
- Spring - courses start in January
- Summer - courses start in May

Students will take two 7-week courses each term. Courses are offered sequentially.



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## FREQUENTLY ASKED QUESTIONS

**Do I need an undergraduate degree in IT or a related field?**

MS-ITL applicants don't need an IT degree, but they must have a bachelor's degree (BS or BA) from an accredited institution. It is preferable to have at least two years of work experience in the information technology field.

**Is a GRE required for admission?**

Candidates who have a GPA above 2.75 are not required to take a GRE; however, a standardized test such as GRE is recommended for applicants with a GPA under 2.75.

**What kind of IT experience do you need to have for this program?**

Applicants should have at least two years of experience in an IT-related field, such as network and systems support, server operations, DevOps, etc. Examples of relevant experience can include computer user support specialists, database administrators and architects, computer systems analysts, and network and computer systems administrators.