

INFORMATION TECH AND MGMT (ITM)

ITM 100

Introduction to Information Technology as a Profession

Introduces students to the profession of information technology, beginning with concepts of systems, systems theory and modeling, information systems, and system integration. Examines the steps necessary to analyze a business problem and identify and define the computing and information requirements appropriate to its solution, with a focus on how to design, implement, and evaluate a technology-based system to meet desired needs. Students learn to analyze the local and global impact of computing on individuals, organizations, and society. Leads students to recognize of the need for continuing professional development, and imparts an understanding of professional, ethical, legal, security and social issues and responsibilities in information technology. Students write and present, building their ability to communicate effectively with a range of audiences, and using standard planning methodologies design an information system to meet the information needs of a small business.

Prerequisite(s): ITM 301 and (ITM 311 or ITM 312)

Lecture: 3 **Lab:** 0 **Credits:** 3

Satisfies: Communications (C)

ITM 300

Communication in the Workplace

Review, analyze and practice verbal and written communication formats found in the workplace. Emphasis on developing skills in technical writing and oral presentations using electronic and traditional media. Credit not granted for both ITM 300 and COM 421. INTM 301 may be substituted for this course.

Lecture: 3 **Lab:** 0 **Credits:** 3

Satisfies: Communications (C)

ITM 301

Introduction to Contemporary Operating Systems and Hardware I

Students study the basics of computer architecture and learn to use a contemporary operating system. Hardware requirements, hardware components, software compatibility, and system installation topics are covered along with post-installation, storage, security and system diagnosis, and repair. Topics also include discussion of current and future technology industry trends.

Lecture: 2 **Lab:** 2 **Credits:** 3

ITM 303

Introduction to Contemporary Operating Systems and Hardware II

Introduces features of an advanced operating system, including basic commands, file and directory manipulation, security, and suitability for server applications. Popular and business-focused desktop and mobile device operating systems will be examined, as well as enterprise and open-source server implementations.

Lecture: 2 **Lab:** 2 **Credits:** 3

ITM 311

Introduction to Software Development

A broad introduction to object-oriented programming and the related knowledge necessary to program in a contemporary programming language. This would include coverage of an Application Development Kit, a standard integrated Development environment, and the use of GUI components.

Lecture: 2 **Lab:** 2 **Credits:** 3

ITM 312

Introduction to Systems Software Programming

Introduces basic concepts of systems programming. Students learn to apply basic programming concepts toward solving problems, create source files and implement header files, work with and effectively use basic data types, abstract data types, control structures, code modularization and arrays. Students will be introduced to object paradigm including, classes, inheritance, and polymorphism applications.

Lecture: 2 **Lab:** 2 **Credits:** 3

ITM 313

Introduction to Open Source Application Development

Introduces basic concepts of systems programming using a modern open source language. Students learn to apply basic programming concepts toward solving problems, writing pseudocode, working with and effectively using basic data types, abstract data types, control structures, code modularization and arrays. They will learn to detect errors, work with variables and loops, and discover how functions, methods, and operators work with different data types. Students will be introduced to the object paradigm including classes, inheritance, and polymorphism.

Lecture: 2 **Lab:** 2 **Credits:** 3

ITM 497

Independent Study

Special projects.

Credit: Variable

ITM 498

Undergraduate Research Immersion: Team

This course provides a faculty-mentored immersive research experience as a part of a student team. Research topics are determined by faculty mentor's area of research.

Lecture: 0 **Lab:** 6 **Credits:** 3