ITM THEORY AND TECHNOLOGY (ITMT)

ITMT 330
Introduction to Information Systems and the IT Profession
Introduces students to 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. This course meets the university Introduction to the Profession Core Course requirement.
Prerequisite(s): (ITM 301 and ITM 311) or ITM 312 or ITM 313 or CS 116 or CS 201
Lecture: 3 **Lab:** 0 **Credits:** 3

ITMT 430
System Integration
In this capstone course, students will identify, gather, analyze, and write requirements based on user needs and will then design, construct, integrate, and implement an information system as a solution to a business problem. Students will document integration requirements using business process models and will learn and apply key systems integration architecture, methodologies, and technologies using industry best practices. User needs and user centered design will be applied in the selection, creation, evaluation, and administration of the resulting system. The system design process will take into account professional, ethical, legal, security, and social issues and responsibilities and stress the local and global impact of computing on individuals, organizations, and society. Discussion will also cover the need to engage in continuing professional development.
Prerequisite(s): ITMD 411 and ITMD 321 and ITMM 471 and ITMO 356 and ITMD 362 and ITMO 340
Lecture: 2 **Lab:** 2 **Credits:** 3
Satisfies: Communications (C), Ethics (E)

ITMT 491
Undergraduate Research
Undergraduate research. Written consent of instructor is required.
Credit: Variable

ITMT 492
Introduction to Smart Technologies
This course covers reconfigurable intelligent devices programmed with modern high level languages focusing on design and integration to modern environments. The course will also cover the topic and deployment of wireless sensor networks and the use of rapid prototyping for commercial application. Students will discover hardware, software and firmware design trade-offs as well as best practices in current embedded systems development. A final project will integrate course topics into a system using an embeddable single-board microcontroller.
Prerequisite(s): ITM 311 or ITM 312
Lecture: 2 **Lab:** 2 **Credits:** 3

ITMT 495
Topics in Information Technology
This course will cover a particular topic varying from semester to semester in which there is particular student or staff interest.
Credit: Variable