ITM THEORY AND TECHNOLOGY (ITMT)

ITMT 514

Enterprise Application Architecture

This course examines current enterprise application architectures from the perspective of senior technology planners and managers. Topics such as models and patterns of enterprise application architecture, application virtualization, cloud application architectures, integration of custom application infrastructure with major vendor products, and full systems integration issues will be addressed.

Prerequisite(s): ITMD 510 with min. grade of C
Lecture: 3 **Lab:** 0 **Credits:** 3

ITMT 531

Object-Oriented System Analysis, Modeling, and Design

This course will cover object oriented approaches to system analysis, data modeling and design that combine both process and data views of systems. Emphasis is given to practical problems and the techniques needed to create solutions in systems design.

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

ITMT 533

Operating System Design Implementation

This course introduces students to the fundamental principles of operating systems design and gives them hands-on experience with real operating systems installation, design, and implementation. The students apply what they learn about operation systems design to practical implementation by modifying and extending the MINIX Operating System. MS Windows and LINUX are briefly discussed as case studies.

Prerequisite(s): ITMD 512 with min. grade of C
Lecture: 3 **Lab:** 0 **Credits:** 3

ITMT 535

Data Center Architecture

The course deals with building integrated data center information infrastructures, including facility, hardware, software, and network components as solutions to particular enterprise information management needs and requirements. Students will learn critical elements of modern data center design including physical plant construction; network infrastructure; data storage technologies; power provisioning and conditioning; environmental controls and HVAC; system and physical security; modular component use; and planning for growth.

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

ITMT 537

Instructional Technologies

In this course students will create, assess, and deploy current technologies used for K-College instruction and corporate training environments. Topics covered include developing training materials, courses, individualized instruction, websites, multimedia projects, and on-line instruction in educational settings. focus will be given to modern programming environments and models for developing instructional materials.

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

ITMT 591

Independent Study and Research

Research and Thesis for Masters' degrees. Instructor permission required.

Credit: Variable

ITMT 593

Embedded Systems

This course introduces embedded systems concepts and technology, illustrates the trade-offs which occur as part of embedded systems design, as well as providing practical applications of embedded systems technology. Particular emphasis is given to embedded systems hardware, software and development tools. The course labs include hands-on development of several stand-alone embedded applications using development tools such as compilers, simulators and evaluation boards. Prerequisite: ITM 301 or equivalent computer architecture course; C/C++ programming experience.

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

ITMT 594

Special Projects in Information Technology

Special projects.

Credit: Variable

ITMT 595

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

ITMT 596

Graduate Honors Studies in Information Technology

Graduate honors project, thesis or whitepaper. Prerequisites: Graduate honors status and consent of the instructor.

Credit: Variable

ITMT 597

Special Problems in Information Technology

Independent study and project.

Credit: Variable