# **COURSE DESCRIPTIONS**

# INFORMATION TECHNOLOGY

# **INFT 5053: Information Systems Resource Management**

A study of the principles and concepts involved in the management of information resources including hardware, software and personnel. Includes coverage of departmental functions within computer/ information services as well as legal, ethical, and professional issues, quality management, and strategic impact of information system.

# **INFT 5103: Software Development**

Prerequisite: One year of programming in a high-level language, or a two semester sequence of programming courses.

Techniques for specifying, designing, developing and testing medium-scale software.

#### **INFT 5203: Database Systems**

Prerequisite: INFT 5403 Introduction to Information Technology and Systems.

An in-depth study of creating databases in a personal productivity package, including relational database design, generation of customized interfaces, and importing/exporting data to other packages. Survey of applications of personal databases in education and industry.

## **INFT 5303: Developing and Administering Web Sites**

Prerequisite: INFT 5403 Introduction to Information Technology and Systems.

The World Wide Web, Web browser, and web servers. Developing web pages. HTML and HTML editors. Characteristics of a good web site. Installing and configuring web browsers and web servers. Security, screening, and privacy issues.

## INFT 5403: Introduction to Information Technology and Systems

Introduction to the infrastructure of information technology and systems. Topics include computer hardware and software, communication and networks, databases, e-commerce technology, design and development of information systems, information security, privacy, ethics, and social impact.

## **INFT 5413: Computer Systems and Architecture**

A study of the fundamentals of system software and computer architecture. The course includes an introduction to the basic foundation of processor operation, memory hierarchy, bus and I/O systems along with their interactions. RISC and CISC instructions sets, fundamental networking terminology and implementation strategies, and an introduction to basic digital logic design.

# **INFT 5503: The UNIX Operating System**

An introduction to the UNIX operating system. Topics to be covered will include the history and philosophy of UNIX systems, an introduction to basic elements of UNIX, the "shell" command interface, utilities for managing files, and an introduction to the functions that administrators perform to maintain or re-establish the reliability of UNIX systems and the tools that UNIX provides to support that activity.

## **INFT 5700: Computer Networks Lab**

Co-requisite: INFT 5703 Computer Networks.

Students will complete network lab exercises in support of INFT 5703 Computer Networks.

# **INFT 5703: Computer Networks**

Prerequisites: INFT 5403 Introduction to Information Technology and Systems and INFT 5413 Computer Systems and Architecture.

Study of the concepts involved in interconnecting computers. Introduction to network topologies, routing, protocols, and security. Survey of network operating systems.

#### **INFT 5981: Special Topics**

A treatment of subjects not routinely covered in other courses. Subjects will vary.

Note: May be repeated for a maximum of nine (9) hours.

# **INFT 5982: Special Topics**

A treatment of subjects not routinely covered in other courses. Subjects will vary.

Note: May be repeated for a maximum of nine (9) hours.

## **INFT 5983: Special Topics**

A treatment of subjects not routinely covered in other courses. Subjects will vary.

Note: May be repeated for a maximum of nine (9) hours.

## **INFT 6013: Decision Support Systems**

This course enables students to acquire a broad understanding of management information systems and their components and the use of data and analysis models to aid the process of making decisions.

#### INFT 6203: Database Development and Administration

Prerequisites: INFT 5103 Software Development and INFT 5203 Database Systems.

A thorough introduction to accessing and maintaining a database via programming interface. Database administration features of SQL. Installation and tuning of a database.

## INFT 6303: Design of Web-Based Information Systems

Prerequisites: INFT 5203 Database Systems and INFT 5303 Developing and Administering Web Sites.

A survey of methods for providing web-based access to data across a network. Common Gateway interface. Use of generation tools for developing web-based forms. Storing form data into a database. Retrieving information from a database and formatting it for presentation through the web and through e-mail. Client-based processing of data. Audio and video mechanisms support.

#### INFT 6403: Information Systems Analysis and Design

Co-requisite: INFT 5203 Database Systems.

A study of the various concepts, tools, principles, procedures, techniques, and stages of information systems development. Emphasis is placed on the systems approach to problem-solving, user involvement, the management of quality, project control, and teamwork. Other subjects will include feasibility study, requirements definition, documentation, system development life cycle, prototyping, and data modeling.

## INFT 6700: Heterogeneous Networks Lab

Co-requisite: INFT 6703 Heterogeneous Networks.

Students will complete network lab exercises in support of INFT 6703 Heterogeneous Networks.

#### **INFT 6703: Heterogeneous Networks**

Prerequisites: INFT 5503 The UNIX Operating System and INFT 5703 Computer Networks.

Networking in a heterogeneous environment.

#### **INFT 6903: Emerging Trends**

Prerequisite: Permission of the coordinator.

Study of emerging trends in information technology. Analyzing and reporting on these trends.

Note: May be repeated for a maximum of twelve (12) hours if topic varies.

#### INFT 6973: Thesis Research in Information Technology I

Prerequisite: Approval of a thesis plan by the thesis committee or the head of the department.

Formal presentation of directed research on a thesis topic selected by the student in consultation with a supervising professor. Prior to the final defense of a written thesis, students will be required to present their research study in a seminar to faculty, staff, and other students.

Note: This course must be continued by taking INFT 6983 Thesis Research in Information Technology II in a later semester to complete the entire six (6) hour thesis research.

#### INFT 6983: Thesis Research in Information Technology II

Prerequisite: INFT 6973 Thesis Research in Information Technology I.

A continuation of the six-hour thesis research. Students may not enroll in this course with INFT 6991 Internship-3 in the same semester. In this course the degree candidate must submit his/her thesis to the thesis committee by the date established by the thesis committee. A final oral defense conducted by the thesis committee must be passed at least three weeks before the degree is conferred.

#### **INFT 6991: Internship**

Prerequisite: Approval of a project proposal by the MSIT Graduate Committee or the Instructor.

Students will develop and/or maintain a sponsored computer laboratory or an information system. Duties will include determining user needs, writing and presenting a laboratory or system development/ maintenance plan, and supporting the laboratory or system for a semester. The internship will require the equivalence of four clock hours per week of direct client interaction per credit hour earned.

Note: This course can be repeated up to six (6) total credit hours in different semesters.

# INFT 6992: Internship

Prerequisite: Approval of a project proposal by the MSIT Graduate Committee or the Instructor.

Students will develop and/or maintain a sponsored computer laboratory or an information system. Duties will include determining user needs, writing and presenting a laboratory or system development/ maintenance plan, and supporting the laboratory or system for a semester. The internship will require the equivalence of four clock hours per week of direct client interaction per credit hour earned.

Note: This course can be repeated up to six (6) total credit hours in different semesters.

# INFT 6993: Internship

Prerequisite: Approval of a project proposal by the MSIT Graduate Committee or the Instructor.

Students will develop and/or maintain a sponsored computer laboratory or an information system. Duties will include determining user needs, writing and presenting a laboratory or system development/ maintenance plan, and supporting the laboratory or system for a semester. The internship will require the equivalence of four clock hours per week of direct client interaction per credit hour earned.

Note: This course can be repeated up to six (6) total credit hours in different semesters.

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