Learning Objectives for MS Information Systems Program

Student learning objectives covers the aspects of telecommunications requirements necessary to support an organization's information technology needs, managerial aspects of an information technology organization, system development process, data needs of an organization, programming concept, collaboration, research, and communication skills. Each learning goal is described below:

1. Telecommunications requirements necessary to support an organization's information technology needs –the ability to assess the telecommunications needs of an organization; the ability to supervise the development of a local or wide area data and communications network; the ability to use the Internet in support of operations, the ability to select the appropriate telecommunications hardware and software.
2. Managerial aspects of an information technology organization - get familiar with the terminology and basic principles of business information systems, and the Internet; understand Ethical issues; Global issues; Political, social, legal, regulatory and environment issues; Technology issues; and Impact of demographic diversity on organizations**.**
3. Systems development process – the ability to analyze the information systems needs of an organization; the ability to design an information system to serve the needs of an organization.
4. Data needs of an organization – the ability to design a database system to serve the needs of an organization; the ability to select appropriate software to operate a database system.
5. Programming concepts – the ability to write a computer program using the fundamental concepts of programming; the ability to document a program; the ability to select a particular computer language for a programming application.
6. Collaboration – the ability to work productively in a team or collaborative setting to achieve common goals.
7. Research – the ability to conduct, evaluate, and synthesize research and apply theoretical ideas to practical settings.
8. Communications – the ability to effectively present ideas in a logical framework in a variety of forms with proper language structure and mechanics.

The required Courses for the program are:

Course Number	**Course Name**
ISDS550	Data Communications and Networks
ISDS551	Information Resources Management
ISDS552	Information Systems Analysis, Design and Development
ISDS555	Business Database: Design & Processing
ISDS577	Seminar in Information Systems Implementation

Each course contains a multi-modal assessment methodology to document learning via projects, demonstrations, applications, research papers, and examinations. Each learning goal is linked to specific course assignments and learning outcomes.

Please see the detailed Assessment Matrix of each learning objectives in the table below.

Assessment Matrix

Learning Objectives	Learning Goals	Relevant Courses	Method of Assessment
Telecommunication requirements necessary to support an organization's information technology needs	• Understand the function of each layer in the OSI Model, and the Internet Model. • Be able to design network topologies (LAN's & WAN's) comprised of, servers, clients hubs, switches, routers, etc. • Gain knowledge on network security and network performance issues	ISDS550	Homework Project Exam
Managerial aspects of an information technology organization	• Be familiar with the terminology and basic principles of business information systems. • Understand Ethical issues; Global issues; Political, social, legal, regulatory and environment issues; Technology issues; and Impact of demographic diversity on organizations.	ISDS551	Homework Exam
System development process	• Plan and organize an information systems development project. • Apply system analysis and design techniques to define and document information system requirements • Apply systems analysis and design techniques to develop object-oriented models (UML diagrams) of information systems • Evaluate models of an information system	ISDS552 ISDS577	Homework Project Exam

Learning Objectives	Learning Goals	Relevant Courses	Method of Assessment
Data needs of an organization	• Develop business data model using entity relationship diagramming technique • Record Design for a Database with normalization methods • Implement a Database • Understand Client-Server architecture • Understand Internet based Databases • Understand Database administration	ISDS555 ISDS577	Homework Project Exam
Programming concepts.	• Be able to write a computer program using the fundamental concepts of programming • Document a program • Select a particular computer language for a programming application	ISDS577	Project
Collaboration	• Be able to work productively in a team or collaborative setting to achieve common goals	ISDS550 ISDS552 ISDS555 ISDS577	Group Project
Research	• Be able to conduct, evaluate, and synthesize research and apply theoretical ideas to practical settings.	ISDS577	Research Paper
Communications	• Be able to effectively present ideas in a logical framework in a variety of forms with proper language structure and mechanics	ISDS550 ISDS552 ISDS555 ISDS577	Project Presentation