CSIS - Computer Information Systems | Grad

CSIS 5300 Database Systems (3)

This course will provide a foundation for understanding organization database technology by examining the way databases are used, designed and managed. The course will introduce fundamental concepts related to operational and data warehouse databases. The course will also cover the principles of extracting required data using QBE technique. Students use industry-standard software Oracle® to improve their database query proficiency. **Prerequisite**: Basic knowledge of computer and information technology.

CSIS 5310 Introduction to Decision Support Systems (3)

This course will teach fundamental concepts of information as well as decision support systems. The course will study information systems terminologies, decision-making process, data management, access and visualizations, constructing a Decision Support System. The course will briefly discuss Executive Information Systems and networks role in a Decision Support System. **Prerequisites**: There are no formal prerequisites to CSIS 5310. However, it is assumed the student has adequate writing, mathematical, and analytical skills. Also, as for all internet courses, the student must be disciplined and self-motivated.

CSIS 5320 Data Analytics Foundations (3)

This course provides an introduction to the field of analytics, which has been defined as the extensive use of data, descriptive, prescriptive, and predictive models, and fact-based management to drive decisions and actions. The development and use of the organization's data to support business analytics is discussed. The application of selected data analytics techniques to business decision-making situations is illustrated. Students use industry-standard software including MS Excel®, Tableau®, SAP Business Explorer®, SAP Business Object Analysis® and Lumira® to improve their data analysis proficiency. **Prerequisite**: BUSN 5760.

CSIS 5400 Data Warehousing (3)

Data warehouses were once unique technological advantages for the corporations that had them. Now they are a relatively common corporate decision support tool used by many organizations to better understand their business. This course will provide a foundation to understand data warehouse technology by examining the way it is designed, managed, and used. The course will explore the fundamental concepts related to data warehouses. Some topics of interest that are covered in this course are the business justification of a data warehouse, management of a data warehouse project, the design, construction and operation of a data warehouse, issues of data quality and performance, and using the data warehouse. **Prerequisites**: Basic knowledge of computer and information technology and completion of CSIS 5300.

CSIS 5410 Introduction to Data Mining (3)

Many businesses are discovering that stored within their corporate data repositories are the elements to understanding and controlling the components of their business processes. Data warehousing, mining and visualization are tools that can provide access to these elements.

This course will provide a foundation to understand data warehouse technology, data mining methods and data visualization techniques by examining how these three technologies interact and depend on one another. The course will review the fundamental concepts related to data warehouses. It will also introduce data mining techniques and have the student experiment with data mining applications. Finally, the course will explain how data visualization can allow managers to quickly access large data repositories and make clear decisions based on integrated information structures. **Prerequisites**: Basic knowledge of computer and information technology and completion of CSIS 5400.

CSIS 5420 Machine Learning for Business Analytics (3)

Business analytics is the process of transforming data into insights to improve business decisions. Data management, data visualization, machine learning modeling and simulation, and optimization are some of the tools used to create insights from data. Business analytics focus on statistical, quantitative, and machine learning, developing data visualizations to present their findings and shape business decisions is the end result. For this reason, balancing business analytics knowledge with business operation and communication skills is imperative. **Prerequisite**: CSIS 5320.

CSIS 5600 Decision Support Systems (3)

This course will require the student to demonstrate their ability to create Enterprise Resource Planning (ERP) and decision support solutions for specific business requirements in an evolving scenario. Each week the student will develop a project proposal utilizing the skills learned in this certificate program that meets a specified business need or initiative. **Prerequisites**: Basic knowledge of computer and information technology and completion of CSIS 5420.

CSIS 9950 Travel Course-Issues in Information Systems (3)

Current and significant issues in computer science are examined. The course focuses on existing theories and practices with emphasis given to new and emerging topics in the field. This course includes a mandatory short-term travel component. May be repeated for credit if content differs.

Course Descriptions