

DEPARTMENT OF COMPUTING AND DECISION SCIENCES

Jubilee Hall, Room 681
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Faculty: Jones (*Adviser*); Orenstein; Ramnarayanan; Rosenberg; Rosenthal; Shim (*Chair*); Shokoohyar; Sorochuk; Viswanathan; Weitz; Wilamowsky

- Business Analytics Major (<http://catalogue.shu.edu/undergraduate/stillman-school-business/department-computing-decision-sciences/business-analytics-major/>)
- Global Supply Chain Management Major (<http://catalogue.shu.edu/undergraduate/stillman-school-business/department-computing-decision-sciences/global-supply-chain-management-major/>)
- Information Technology Management (B.S.B.) (<http://catalogue.shu.edu/undergraduate/stillman-school-business/department-computing-decision-sciences/information-technology-management/>)

Note to Students: The following listing represents those courses that are in the active rotation for each department, i.e., have been offered in the past five years. Some departments have additional courses offered more rarely but still available – to find the complete list of all official courses for a department, please use the “Course Catalogue Search” function in Self-Service Banner

Course Descriptions

BITM 2701 Management Information Systems (3 Credits)

Role of technology in the management process. Introduction to the basic concepts of computer hardware and software. A significant part of the course deals with building spreadsheets to model business problems. In addition, database and Internet-related tools are covered. Emerging ethical issues in technology are treated. Offered: Fall, Spring.

BITM 3701 Data Analys - Bus Intelligence (3 Credits)

BITM 3721 Introduction to Programming (3 Credits)

This is a first course in computer programming for business majors using Python. Students are exposed to algorithms and programming techniques, with a focus on business-oriented problems.

Prerequisites: BITM 3727

BITM 3724 Business Information Modeling (3 Credits)

The course is designed to provide an understanding of accounting information and information technology in the operational and strategic decision-making of the firm. Relational databases, data modeling, SQL and web application development are covered in significant detail. Students will become familiar with several organizational transaction processing subsystems. Students will develop an understanding of internal controls and the impact of information systems on managerial decisions and organization performance.

Prerequisites: BITM 2701

BITM 3727 Advanced Business Software Tools (3 Credits)

This course will teach advanced topics in spreadsheet (Excel) design/programming. The course will show students how to use Visual Basic for Applications (VBA) to build functionally rich spreadsheets.

BITM 3730 Developing Web Applications (3 Credits)

The course will focus on the development of web pages enhanced with live data from databases, adding interactivity, user preferences, and storage. The course will start out with a simple example and end with a “sophisticated” project that uses all the techniques and technology examined in the course.

BITM 3732 Enterprise Resource Planning Systems (3 Credits)

IT and supply chain management professionals must develop a deep understanding of standard business processes that cut across all organizations. SAP is the industry leading ERP software, and course participants will gain valuable hands-on experience in working with the various applications by interacting with the appropriate modules in SAP. The interaction will exercise modules that companies use to implement supply chain management principles. Many of the course assignments will be done on SAP.

Prerequisites: BITM 2701

Enrollment limited to students with a semester level of Junior or Senior.

BITM 3735 Mobile App Development (3 Credits)

In this course, students will learn how to design and develop mobile apps through web-based tutorials and hands-on activities. All apps will be developed using MIT App Inventor, a free visual development environment that does not require previous programming experience.

BITM 3740 IT Project Management (3 Credits)

With the pervasive use of IT in organizations for mission critical applications, successfully envisioning and implementing these applications is critical to the success of modern organizations. With the rise of outsourcing, this is becoming even more critical. Managing IT projects is very complex and requires not only general project management techniques and skills, but also the mastery of some IT specific project management issues. This course will sensitize participants to various IT project management skills and techniques relevant to current practice.

BITM 3741 Supply Chain Management (3 Credits)

The function of supply chain management is to design and manage the processes, assets, and flows of material and information required to satisfy customers’ demands. Globalization of the economy and electronic commerce has heightened the strategic importance of supply chain management and created new opportunities for using supply chain strategy and planning as a competitive tool. The purpose of this course is to explore the basic dynamics of supply chains and to study quantitative methods currently applied to supply chain management (SCM). The course will provide an introduction to the theory of supply chain management together with examples of how businesses implement these theories in practice.

Prerequisites: BQUA 2812

BITM 3744 Business Intelligence (3 Credits)

Routine business operations generate huge amounts of data, but much of it goes unused beyond the immediate purpose for which it was gathered. Businesses are becoming increasingly aware of the potential for such data to yield significant insights. This course covers tools and techniques for extracting intelligence from data. The course covers the concepts of exploratory data analysis and uses the R computing environment. Topics include principles of data visualization, using ggplot for data visualization, tidying data, preparing data for analysis and exploring data to identify underlying patterns using the dplyr package.

Prerequisites: BQUA 2811

BITM 3746 Big Data Analytics (3 Credits)

Prerequisites: BQUA 2811 and BITM 3744

BITM 3747 Business Applications of Machine Learning (3 Credits)

The course will equip participants with the ability to identify situations that could benefit from machine learning techniques like classification and regression to make good business decisions. Participants will learn to identify the data requirements and work with concerned people to get the data, to manipulate the data into a form usable for predictive analysis with machine learning, and to build, evaluate, present and deploy the models.

BITM 3753 Enterprise-Wide Accounting Information Systems II (3 Credits)

This course will provide participants with a clear understanding of enterprise applications like financial accounting, controlling, materials management, materials planning and production, sales and distribution, and warehouse management. Each of these applications will be covered through the use of the SAP enterprise systems. In addition, the course will cover security, auditing, evaluation and implementation as applied to information systems.

BITM 3766 AI Management (3 Credits)

BITM 4260 Finance and Technology (3 Credits)

Introduction to information technology concepts, techniques, and responsibilities that the finance business must address, with coverage of four disruptive technologies: elastic cloud computing, big data, augmented intelligence, internet -of-things. The business models for commercial and investment banking, insurance and risk management, and market exchanges will provide the context for use of change methodologies. Topics include governance, financial services regulations, continuity of business, data privacy, and ethical decision making.

Prerequisites: BFIN 2201

BITM 4336 Legal Aspects of Inform Techni (3 Credits)

BITM 4546 Ideas and Trends (3 Credits)

BITM 4639 Web 2.0 Marketing (3 Credits)

The application and management of direct-response marketing in segmenting, targeting and establishing long-term relationships with customers. An emphasis on interactive technologies in the dissemination of marketing information and the distribution of goods and services in the electronic marketplace. The management of personal and business-to-business customer databases, and the development, management and evaluation of effective internet marketing, virtual shopping and customized marketing strategies. Offered: Spring.

Prerequisites: BMKT 2601

BITM 4701 Internship (3 Credits)

BITM 4788 IT Management Internship (1 Credit)

BITM 4789 IT Management Internship (2 Credits)

BITM 4794 Management Information System Co-op I (3 Credits)

See Internship Adviser. Internship courses are counted as general electives. Offered: Fall, Spring.

BITM 4795 Management Information System Co-op I (3 Credits)

See Internship Adviser. Internship courses are counted as general electives. Offered: Fall, Spring.

BITM 4796 Management Information System Co-op I (1 Credit)

BITM 4799 Directed Research/ITM (3 Credits)

Application for Independent Study must be completed and approved prior to registration. Forms are available from the faculty member chosen for the supervision of the project. Emphasis on research and field work appropriate to the students' backgrounds and career objectives.

Prerequisite: Departmental approval. Offered: Fall, Spring.