Information Systems

(2016-2017 Catalog Year)

Curriculum

In addition to completing the University of Utah's and Eccles School's core requirements, students seeking a Bachelor's Degree in Information Systems must complete the following courses. (Students seeking an Honors Bachelor's Degree in Information Systems must complete the major's honors requirements, as well). Students can find full course descriptions and course prerequisites on the University of Utah's General Catalog and class schedule.

Core Courses

■ **IS 4415 - Data Structures & Java**

Topics include: object-oriented computer programming, using the Java programming language; variables; control-flow statements; single-value data structures; lists, sets, hash tables, trees, and graph data structures; and algorithms for searching, sorting, and clustering data.

■ **IS 4420 - Database Fundamentals**

Topics include: database theory and design, using entity-relationship diagrams (ERD); logical modeling (including normalizing data tables, defining keys, and querying the data); and structured query language (SQL) topics (including aggregates, embedded queries, and joins).

■ **IS 4430 - Process Analysis & IS Project Management**

Topics include: information system analysis; analysis tools; the procedures for managing information system analysis projects; the role of the systems analyst in an organization; and concepts, philosophies, trends, tools, and techniques in systems analysis and design.

■ **IS 4440 - Networking & Servers**

Topics include: telecommunication systems; management support for networking; data communications; computer network definitions, concepts, and principles (including topologies, protocols, standards, routers, gateways, and cabling); and the benefits, drawbacks, effects, trade offs, and compromises related to data communication technologies.

■ **IS 4460 - Web Based Applications**

Topics include: technologies and tools that assist businesses in using the World Wide Web successfully (including Java programming, JSP, HTML, XML, HTTP, and Web servers and databases).

■ **Students must complete one (1) of the following courses:**

IS 4470 - Telecommunication & Security

IS 4480 - Data Warehouse Design & Implementation

IS 4482 - Business Data Mining

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■ **OIS 3440 - Applications of Business Statistics**

Topics include: designing experiments, goodness of fit, contingency tables, correlation analysis, nonparametric statistics, statistical process control, developing and interpreting regression models, and creating graphical and numerical outputs in Microsoft Excel.

Global Perspectives Courses

■ **OIS 5620 - Global Supply Chain Management**

Topics include: how to improve the performance of an individual firm and the supply chain network (including material flows, information flows, and contractual arrangements) and aligning the inventories, information, and incentives of a supply chain operating in a global context.

■ **Students must complete a university-approved International (IR) course.**

Program of Study

The University of Utah's General Catalog includes a sample four-year degree plan for the Information Systems major. Students can customize this plan, using the Degree Plan feature in My Degree Dashboard. In addition to utilizing these tools, the Eccles School encourages students to work closely with their academic advisor. Advising will ensure proper course sequencing, while also creating a personalized academic roadmap.