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 requisite details on the University of Utah's General Catalog and class schedule.

Core Courses

■ IS 4415 - Data Structures & Java

Prerequisite: IS 4410 or 4411

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

Prerequisite: IS 4410 or 4411

Topics include: database theory and design, 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

Prerequisite: IS 4410 or 4411

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

Prerequisite: IS 4410 or 4411

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, tradeoffs, and compromises related to data communication technologies.

■ IS 4460 - Web Based Applications

Prerequisite: IS 4415

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).

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Core Courses (continued)

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

IS 4470 - Telecommunication & Security

IS 4480 - Data Warehouse Design & Implementation

IS 4482 - Business Data Mining

■ **OIS 3440 - Applications of Business Statistics**
Prerequisite: OIS 2340

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**
Prerequisite: OIS 3660 or 3661

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 road-map.

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To help students plan their schedules, the Department of Operations & Information Systems has put together a scheduling guide. While it cannot guarantee offerings in the event of unforeseen circumstances (e.g. instructor illness), the department intends to offer the following courses at the time and semester indicated, even if enrollment is low.

Please note that the department does not offer major IS courses in the summer.

	Fall	Spring
Information Systems Core		
IS 4415 - Data Structures & Java	Evening	Day
IS 4420 - Database Fundamentals	Day	Evening
IS 4430 - Process Analysis & IS Project Management	Day	Evening
IS 4440 - Networking & Servers	Day	Evening
IS 4460 - Web Based Applications	Day	Evening
IS 4470 - Telecommunication & Security	Day	Evening
IS 4480 - Data Warehouse Design & Implementation	Day	Evening
IS 4482 - Business Data Mining	Day	Evening

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