

Undergraduate Management of Information Systems



"If you look into the mission statement, 'Prepare for a Life of Significance,' that's exactly what you'll be doing by coming here...

To have a university rooted in those values, I think that speaks for itself. Our instructors having real-world experience, having been in the field, was huge for our development."

- Abby M.
Ottawa Alumni

At Ottawa University

The Bachelor of Science in Management of Information Systems provides knowledge and skills related to the programming, storage, networking, and communication of information in an organization. This preparation also includes basic concepts and principles of business practices, along with skills in planning, problem solving, decision making, and systems analysis. Students develop a computer proficiency and gain the ability to utilize information systems in organizations effectively, efficiently and responsibly, with an understanding of the critical nature of information management in a global economy.

Careers

The U.S. Department of Labor, Bureau of Labor Statistics projects employment of computer and information systems managers to grow 16 percent by 2016, which is faster than the average for all occupations. New applications of technology in the workplace will continue to drive demand for workers, fueling the need for more managers.

Education and Qualifications

A bachelor's degree usually is required for management positions, although employers often prefer a graduate degree. As computer systems become more closely connected with day-to-day operations of businesses, computer and information systems managers are also expected to be aware of business practices. They must possess strong interpersonal, communication and leadership skills because they are required to interact not only with staff members, but also with other people inside and outside their organizations. They must possess team skills to work on group projects and other collaborative efforts.

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Foundation Courses

ACC 20364 - Accounting for Business Operations (4)

Introduces operating activities of business. Emphasis on using income statements to plan and evaluate the operations of a for-profit entity.

ECO 20163 - Macroeconomics (3)

Focuses on inflationary consequences of monetary and fiscal policies designed to eliminate poverty and unemployment, significance of money and government deficits on attainment of goals of high employment and economic growth in a non-inflationary environment and role of the dollar in international trade.

ECO 20263 - Microeconomics (3)

Study of the role of prices in allocating and developing scarce resources to meet the needs and demands of consumers, the impact of the profit motive on business size and efficiency, the economic power of large-scale business firms, the interplay of private and public choice through price controls, business regulation and taxation.

ITS 25008 - Microsoft Excel (2)

The course aims to cultivate proficient users who can effectively navigate Excel's various features, such as handling cells and files, formatting worksheets, managing workbooks, and leveraging formulas and functions. Additionally, students will learn page setup and printing techniques, enhancing their document preparation skills. The course also emphasizes mastering Excel's visual elements, including creating and managing charts and other graphical objects.

MAT 10643 - College Algebra (3)

Emphasizes problem solving techniques using algebraic concepts. The focus of the course is directed toward exploring how algebra is used in the social and physical sciences. Topics covered include fundamental concepts of algebra, equations, and inequalities, functions and graphs, systems of linear equations, exponential and logarithmic equations, composition and inverse functions.

OAD 31564 - Quantitative Methods in Business (4)

Introduces use of quantitative methods in business emphasizing quantitative analysis techniques using Microsoft Excel. Includes spreadsheet preparation of financial and operational schedules and application of financial analysis, budgeting and forecasting, economic and investment opportunity analysis, data analytics, programming and mathematical functions relating to supply and demand decision-making.

Choice Between MAT 20044, OAD 30763, or OAD 31564

MAT 20044 - Introduction to Statistics (4)

Offers the student an intuitive introduction to descriptive and inferential statistics. Topics covered include data organization, averages and variation, elementary probability theory, binomial and normal probability distributions, Central Limit Theorem, estimation, hypothesis testing, linear regression and correlation. Prerequisite: Score of 16 on non-math track initial placement or MAT 10443 Intermediate Algebra.

OAD 30763 - Business Statistics (4)

Focuses on basic methods of research design and analysis of data including descriptive and inferential statistics. Topics include mean, median, mode, frequency distribution, range, standard deviation, probabilities of sampling selection, Z-score, T-value, regression and correlation, hypothesis testing, analysis of variance and Chi-square analysis.

OAD 31664 - Business Ethics (3)

Introduces development of personal and group norms required for work places. Topics include moral reasoning in business, employee rights and responsibilities of corporations.

Required Major Courses

MIS 30163 - Database Management (4)

Examines design, development and administration of large-scale database applications on a scale appropriate to needs of business operations. Prerequisite: ITS 20163 Introduction to Databases.

MIS 30563 - Enterprise Architecture (4)

Explores the design, selection, implementation and management of enterprise IT solutions, focusing on applications and infrastructure and their fit within business organizations. Covers frameworks and strategies for infrastructure management, system administration, data/information architecture, content management, distributed computing, middle ware, legacy system integration, system consolidation, software selection, total cost of ownership calculation, IT investment analysis, and emerging technologies.

MIS/OAD 41464 - Project Management (4)

Provides theory and application in project planning, implementation, control and completion. Includes network planning, project evaluation and review techniques (PERT), critical path methods (CPM), management by objectives, management by exception, cost analysis and resource allocation/leveling.

MIS 47163 - Informational Technology Infrastructure (4)

Provides an introduction to IT infrastructure issues and covers topics related to both computer and systems architecture and communication networks. Includes an overall emphasis on the services and capabilities that IT infrastructure solutions enable in an organizational context. The course also focuses on Internet-based solutions, computer and network security, business continuity, and the role of infrastructure in regulatory compliance. Prerequisite: ITS 02263 Introduction to Networking.

MIS/CST 48163 - Systems Analysis and Design (4)

This course is an in-depth study of the systems development life cycle. The purpose of the course is to utilize a blend of traditional development and current techniques. Systems Analyst planning includes the methodology, economic analysis, and project management.

OAD 30063 - Behavior in Organizations (3)

Study of human behavior in work organizations. Focuses on individual satisfaction and motivation as related to organizational structure, nature of task and locus of power. Topics include small group formation, maintenance, organizational conflict, communications and leadership.

OAD 30563 - Management (3)

Discusses process for managing organizations including planning, organizing, leading and evaluating. Examines administrative role in organizations and concepts relevant to its function and historical development of administrative thought.

MIS 49100 - Methodologies of Project

Development (4)

Capstone course that guides student to emphasize various methodological approaches to software acquisition, development, testing and implementation, and understand relevance of methodologies to Capability Model Theory, interdependence of phase deliverables, quality control techniques and methods, and tools for testing.

Concentrations Available:

- Economics
- Finance
- Leadership and Management
- Marketing