Undergraduate Major in Business Information Management

Overview

As the business environment becomes increasingly global and information-centric, the need has increased for graduates who understand and can use technology that gathers and provides information, who are able to distill and recognize patterns in that information, and who can apply those analyses to achieve business objectives.

The undergraduate Business Information Management major administered by the Donald Bren School of Information and Computer Sciences is a collaborative, interdisciplinary degree program between the Bren School and The Paul Merage School of Business. The program seeks to educate students to understand and then apply the theories and concepts of a broad, integrated curriculum covering computing, informatics, business fundamentals, and analytical decision-making. The major prepares students for a wide variety of careers and life experiences. Business Information Management majors can pursue careers in the for-profit and not-for-profit sectors or can proceed to graduate school in several disciplines, including information systems, computing, economics, business, and law.

The curriculum is presented across three general academic areas: Computing (computer science, informatics, and software); Business Foundations (accounting, finance, marketing, strategy, and operations); and Analytical Methods (mathematics, statistics, economics, management science, and decision analysis). The fundamentals of information and computer science, including the rudiments of software design and construction with an emphasis on data management, provide the foundation for understanding, describing, and evaluating the technology through which most business information is gathered and presented. The business fundamentals, covering all the functional areas in the Merage School, provide a background and context in which information and its analysis will be applied.

Admissions

If the number of Business Information Management applicants exceeds the number of positions available, applicants may be subject to screening beyond University of California admissions requirements.

Freshmen Applicants: See the Undergraduate Admissions section.

Transfer Applicants: Junior-level applicants who satisfactorily complete the following requirements will be given preference for admission.

Have a cumulative GPA of 3.0 and grade of B or higher in required courses below:

1. Completion of one year of approved college-level math, preferably courses in calculus equivalent to UCI's MATH 2A-MATH 2B; if not available, one year of coursework equivalent to other major-related math courses is acceptable.
2. One year of computer programming courses in an object-oriented or higher-level programming language. For example, Python, Java, C++, data structures, assembly language and machine organization. Object-oriented or higher-level programming language courses that do not directly articulate to I&C SCI 31-33 can be used to satisfy the admissions requirements. Introduction to computer science courses do not meet this requirement.
3. Completion of one year of introductory accounting theory and practice equivalent to UCI's MGMT 30A-MGMT 30B.
4. Completion of one year of micro- and macro-economics theory equivalent to UCI's ECON 20A-ECON 20B.

*NOTES: 1. The introductory sequence in ICS is offered in Python. The Bren School of ICS strongly encourages all participants to become familiar with this programming language prior to matriculation. Additional computer science courses beyond the two required are strongly recommended, particularly those that align with the major(s) of interest. Java is used extensively in the curriculum; therefore, transfer students should plan to learn it by studying on their own or by completing a Java-related programming course prior to their first quarter at UCI. 2. It is recommended that students meet the articulation agreement on Assist.org (http://www.assist.org/web-assist/welcome.html) between their community colleges and this major at UC Irvine. This will allow them to make efficient progress toward the major.

Courses in Visual Basic, C, and C# are not approved preparation for this major.

Additional courses beyond those required for admission must be taken to fulfill the lower-division degree requirements, as many are prerequisites for upper-division courses. For some transfer students, this may mean that it will take longer than two years to complete their degree.
Requirements for the B.S. in Business Information Management

All students must meet the University Requirements.

Major Requirements

A. Lower-Division: Complete one of the following course groups:

### Group 1
- I&C SCI 31: Introduction to Programming
- I&C SCI 32: Programming with Software Libraries
- I&C SCI 33: Intermediate Programming

### Group 2
- I&C SCI 32A: Python Programming and Libraries (Accelerated)
- I&C SCI 33: Intermediate Programming

B. Complete the following:
- I&C SCI 45J: Programming in Java as a Second Language
- IN4MATX 43: Introduction to Software Engineering

C. Complete the following:
- MATH 2A-2B: Single-Variable Calculus and Single-Variable Calculus
- I&C SCI 6D: Discrete Mathematics for Computer Science
- I&C SCI 6N: Computational Linear Algebra
  or MATH 3A: Introduction to Linear Algebra
- STATS 7: Basic Statistics
  or STATS 8: Introduction to Biological Statistics
  or STATS 67: Introduction to Probability and Statistics for Computer Science

D. Complete the following:
- ECON 20A-20B: Basic Economics I and Basic Economics II
- MGMT 30A-30B: Principles of Accounting I and Principles of Accounting II

E. Upper-Division Core:
- MGMT 101: Management Science
- MGMT 102: Managing Organizational Behavior
- MGMT 105: Introduction to Marketing
- MGMT 107: Introduction to Management Information Systems
- MGMT 109: Introduction to Managerial Finance
- MGMT 110: Strategic Management
- MGMT 173: Business Intelligence for Analytical Decisions
- MGMT 178: Management of Information Technology
- MGMT 189: Operations Management
- COMPSCI 121/IN4MATX 141: Information Retrieval
- COMPSCI 122A/EECS 116: Introduction to Data Management
- IN4MATX 113: Requirements Analysis and Engineering
- IN4MATX 143: Information Visualization
- STATS 110: Statistical Methods for Data Analysis I

F. Electives:
Select five upper-division courses, except independent study and internships, with at least three of the five courses to be taken within the Bren School. Upper-division courses completed via the UC Education Abroad Program may also be utilized toward this requirement upon prior approval by the Bren School of ICS Student Affairs Office.

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1. MGMT 7 or any other Statistics course will not be accepted as a substitute for the STATS 7, STATS 8, or STATS 67 requirement. Please check with the ICS Student Affairs Office if considering a course outside of these three options.
NOTE: Students majoring in Business Information Management may not double major in Business Administration nor minor in Management, Innovation and Entrepreneurship, Informatics, or Information and Computer Science.

**Sample Program of Study — Business Information Management**

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<td>I&amp;C SCI 31</td>
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<td>MATH 2A</td>
<td>ECON 20A</td>
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<td>WRITING 39A</td>
<td>MATH 2B</td>
<td>ECON 20B</td>
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<td>WRITING 39B</td>
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<td>COMPSCI 122A</td>
<td>IN4MATX 43</td>
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<td>I&amp;C SCI 6D</td>
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<td>MGMT 30A</td>
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<td>IN4MATX 113</td>
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<td>MGMT 107</td>
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**NOTES:**

1. Students are advised that this sample program lists the minimum requirements; it is possible that students may have to take additional courses to prepare for required courses.

2. The lower-division writing requirement must be completed by the end of the seventh quarter at UCI.

3. This is only a sample plan. Course offerings may be moved due to unforeseen circumstances. It is strongly recommended that students meet with an academic advisor to create an academic plan tailored to meet their specific areas of interest.

4. ICS upper-division electives may be satisfied by courses offered by the Donald Bren School of Information and Computer Sciences only.