Business Analytics and Information Systems, B.B.A.

Requirements

The Bachelor of Business Administration with a major in business analytics and information systems requires a minimum of 120 s.h., including 22 s.h. of work for the major. The program provides a variety of educational experiences that develop students' knowledge of managerial decision-making systems. Students acquire skill in applying this knowledge by constructing quantitative models, using computer technology, and creating database systems.

Students choose one of two tracks: business analytics or information systems.

The B.B.A. with a major in business analytics and information systems requires the following course work. For common B.B.A. requirements, see the Bachelor of Business Administration in the Catalog.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Major Common Required Courses</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Required Track Courses</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Required Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>22</td>
</tr>
</tbody>
</table>

Major Common Required Courses

Students in both tracks must complete these three courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI:3020</td>
<td>Computational Thinking</td>
<td>3</td>
</tr>
<tr>
<td>MSCI:3050</td>
<td>Business Analytics and Information Systems Professional Preparation</td>
<td>1</td>
</tr>
<tr>
<td>MSCI:3200</td>
<td>Database Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Track Courses

Students complete the requirements from one of the two tracks below.

Business Analytics Track

Students in the business analytics track complete all of the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI:3250</td>
<td>Data Wrangling</td>
<td>3</td>
</tr>
<tr>
<td>MSCI:3500</td>
<td>Data Mining</td>
<td>3</td>
</tr>
<tr>
<td>MSCI:3800</td>
<td>Optimization and Simulation Modeling</td>
<td>3</td>
</tr>
<tr>
<td>MSCI:4150</td>
<td>Business Analytics Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Information Systems Track

Students in the information systems track complete all of the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI:3120</td>
<td>Application Development</td>
<td>3</td>
</tr>
<tr>
<td>MSCI:3300</td>
<td>Software Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Electives (Both Tracks)

All students complete at least 3 s.h. from the following.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI:3400</td>
<td>Data Communications</td>
<td>3</td>
</tr>
<tr>
<td>MSCI:4350</td>
<td>Information Systems Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Business Analytics and Information Systems, B.B.A.

- Business Analytics Track [p. 1]
- Information Systems Track [p. 2]

Business Analytics Track

Course | Title | Hours |
--------|-------|-------|
Any Semester | | |

The BBA requires additional electives including a minimum number of nonbusiness hours. Check your major degree audit for nonbusiness hours counting toward degree. Consult with Tippie advisor if you have questions.

To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course.³

Course sequencing is important in this major. Students meeting the course prerequisites at the time they begin the major should expect a minimum of three semesters (not including summer) to complete the sequence.
Completing MSCI:3005 Information Systems and MSCI:2800 Business Analytics by the end of the second year or no later than the first semester of the third year is important to course prerequisite sequencing.

<table>
<thead>
<tr>
<th>Hours</th>
<th>0-3</th>
</tr>
</thead>
</table>

### First Year

#### Fall

- **MATH:1340** Mathematics for Business \(^b\) 4
- **RHET:1030** Rhetoric 4
- **GE: Historical Perspectives** 3
- **GE: Natural Sciences without Lab** \(^c\) 3
- **CSI:1600** Success at Iowa 2

#### Hours

- 16

### Spring

- **MATH:1380** Calculus and Matrix Algebra for Business 4
- **ECON:1100** Principles of Microeconomics 4
- **MSCI:1500** Business Computing Essentials 2
- **ENGL:1200** The Interpretation of Literature 3
- **GE: Diversity and Inclusion or GE: Values and Culture** \(^c\) 3

#### Hours

- 16

### Second Year

#### Fall

- **ACCT:2100** Introduction to Financial Accounting 3
- **STAT:1030** Statistics for Business 4
- **MGMT:2000** Introduction to Law 3
- **MSCI:3005** Information Systems 3
- **GE: Social Sciences (excluding ECON:1100 Principles of Microeconomics and ECON:1200 Principles of Macroeconomics)** \(^c\) 3

#### Hours

- 16

#### Spring

- **ACCT:2200** Managerial Accounting 3
- **MSCI:2800** Foundations of Business Analytics 3
- **ECON:1200** Principles of Macroeconomics 4
- **MGMT:2100** Introduction to Management 3
- **Non-business elective course** 3

#### Hours

- 16

### Third Year

#### Fall

- **MSCI:3050** Business Analytics and Information Systems Professional Preparation 1
- **MSCI:3000** Operations Management 3
- **MSCI:3200** Database Management 3
- **BUS:3000** Business Communication and Protocol 3
- **GE: International and Global Issues** \(^c\) 3

#### Hours

- 13

#### Spring

- **MSCI:3020** Computational Thinking 3
- **Major: BAIS track course** \(^d\) 3
- **FIN:3000** Introductory Financial Management 3
- **Non-business elective course** 3

#### Hours

- 0-3

### Fourth Year

#### Fall

- **Major: BAIS track course** 3
- **Elective course** 3
- **Non-business elective course** 3

#### Hours

- 15

#### Spring

- **MSCI:4150** Business Analytics Capstone 3
- **Major: BAIS track course** 3
- **MKTG:3000** Introduction to Marketing Strategy 3
- **Elective course** 3
- **Non-business elective course** 1

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall)

#### Hours

- 13

Total Hours

- 120-123

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\(a\) See degree audit for course options.

\(b\) Enrollment in math courses requires completion of a placement exam.

\(c\) GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

\(d\) Consult with advisor for course sequencing.

\(e\) Please see Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor. For more information visit [http://commencement.uiowa.edu](http://commencement.uiowa.edu)

### Information Systems Track

<table>
<thead>
<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td></td>
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### Academic Career

#### Any Semester

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To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. \(^a\)

Course sequencing is important in this major. Students meeting the course prerequisites at the time they begin the major should expect a minimum of three semesters (not including summer) to complete the sequence.

Completing MSCI:3005 Information Systems and MSCI:2800 Business Analytics by the end of the second year or no later than the first semester of the third year is important to course prerequisite sequencing.

### First Year

#### Fall

- **MATH:1340** Mathematics for Business \(^b\) 4
Career Advancement

The business analytics and information systems major prepares students for careers in data mining, supply chain management, and the design and management of information technology. The major prepares students for career opportunities in both manufacturing and service organizations. Graduates find entry-level work as computer programmers, systems analysts, sales representatives with computer companies, and management trainees. Entry-level work in operations management is found in materials management, line supervision, purchasing, and manufacturing systems.

Over 90 percent of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information about careers, visit the Pomerantz Career Center website.