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 21 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 B.B.A. common requirements, see Bachelor of Business Administration in the Catalog.

Major Common Required Courses

Students in both tracks must complete these two courses.

- MSCI:3030 Business Process Analysis 3
- MSCI:3200 Database Management 3

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.

- MSCI:3250 Analyzing Data for Business Intelligence 3
- MSCI:3500 Data Mining 3
- MSCI:3800 Optimization and Simulation Modeling 3
- MSCI:4150 Business Analytics Capstone 3

Information Systems Track

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

- MSCI:3020 Business Programming 3
- MSCI:3300 Software Design and Development 3
- MSCI:3400 Data Communications 3
- MSCI:4350 Information Systems Capstone 3

Required Electives (Both Tracks)

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

- MSCI:3025 VBA Spreadsheet Programming 3
- MSCI:3100 Accounting Information Systems 3
- MSCI:3920 Supply Chain Management 3
- MSCI:4020 Android Development 3
- MSCI:4220 Advanced Database Management and Big Data 3
- MSCI:4280 Data Security 3
- CS:1210 Computer Science I: Fundamentals 4
- ECON:3355 Economic and Business Forecasting 3
- MKTG:3102 Marketing Analytics 3
- Any computer science course for which CS:1210 is a prerequisite 3-4
- Any course required for the nonselected track 3

Academic Plans

Sample Plan of Study

Business Analytics and Information Systems (B.B.A.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MATH:1380</td>
<td>Calculus and Matrix Algebra for Business</td>
<td>4</td>
</tr>
<tr>
<td>RHET:1030</td>
<td>Rhetoric</td>
<td>4</td>
</tr>
<tr>
<td>ECON:1100</td>
<td>Principles of Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ENGL:1200</td>
<td>The Interpretation of Literature</td>
<td>3</td>
</tr>
<tr>
<td>MSCI:1500</td>
<td>Business Computing Essentials</td>
<td>2</td>
</tr>
<tr>
<td>STAT:1030</td>
<td>Statistics for Business</td>
<td>4</td>
</tr>
<tr>
<td>CSI:1600</td>
<td>Success at Iowa</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Hours</td>
<td>16</td>
</tr>
</tbody>
</table>

Spring

- ECON:1200 Principles of Macroeconomics 4
- ECON:2800 or MSCI:2800 Statistics for Strategy Problems or Business Analytics 3
- Diversity and Inclusion or Values and Culture 3
- GE: Natural Sciences without a lab 3

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<tr>
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<tr>
<td>ACCT:2100</td>
<td>Introduction to Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECON:1200</td>
<td>Principles of Macroeconomics</td>
<td>4</td>
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<td>3</td>
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<td>ACCT:2200</td>
<td>Managerial Accounting</td>
<td>3</td>
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Second Year

Fall

- ACCT:2100 Introduction to Financial Accounting 3
- ECON:1200 Principles of Macroeconomics 4
- ECON:2800 or MSCI:2800 Statistics for Strategy Problems or Business Analytics 3
- Diversity and Inclusion or Values and Culture 3
- GE: Natural Sciences without a lab 3

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<tr>
<td>ACCT:2200</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>
BUS:3000 Business Communication and Protocol 1
MSCI:3000 Operations Management
MSCI:3005 Information Systems
Non-business elective course

Third Year
Fall
MGMT:2100 Introduction to Management
MSCI:3030 Business Process Analysis
MSCI:3200 Database Management
GE: International and Global Issues
Non-business elective course

Hours 15

Spring
FIN:3000 Introductory Financial Management
MGMT:2000 Introduction to Law
Business analytics and information systems track requirement
Non-business elective course
Non-business elective course

Hours 15

Fourth Year
Fall
Business analytics and information systems track requirement
Business analytics and information systems track requirement or elective course
Elective course
Non-business elective course
Non-business elective course

Hours 14

Spring
MKTG:3000 Introduction to Marketing Strategy
Business analytics and information systems capstone course (MSCI:4150 or MSCI:4350)
Business analytics and information systems track requirement or elective course
Elective course
Non-business elective course

Hours 14

Total Hours 120

1 BUS:3000 Business Communication and Protocol must be taken in the first semester after admission to the Tippie College of Business. Direct admits take BUS:3000 their second year.

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 What Can I Do with a Major in Business Analytics and Information Systems.