## M.S. in Business Analytics (Career)

Plan of Study, Effective for Entering Class Fall 2024

<table>
<thead>
<tr>
<th>Fall</th>
<th>13sh</th>
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<tbody>
<tr>
<td>BAIS:9100:0700 Data and Decisions</td>
<td>3sh</td>
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<tr>
<td>BAIS:6050:0700 or 800 Data Management</td>
<td>3</td>
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<tr>
<td>BAIS:6040:0700 Data Programming in Python</td>
<td>3</td>
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<tr>
<td>BAIS:6140 Visual Analytics</td>
<td>3</td>
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<tr>
<td>BAIS:9400:0700 Professional Development Business Acumen (repeated)</td>
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<th>Spring</th>
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<tr>
<td>BAIS:9110:0700 Advanced Analytics</td>
<td>3sh</td>
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<tr>
<td>BAIS:6070:0700 Data Science</td>
<td>3</td>
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<tr>
<td>BAIS:9400:0700 Professional Development Business Acumen</td>
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<tr>
<td>BAIS:8130:0701 Business Communication (repeated)</td>
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<tr>
<td>Elective 1</td>
<td>3</td>
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<td>Elective 2</td>
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<tr>
<th>Fall</th>
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<tbody>
<tr>
<td>BAIS:6120:0700 Analytics Experience</td>
<td>3sh</td>
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<td>BAIS:8130:0702 Business Communication</td>
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<td>Elective 3</td>
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<td>Elective 4</td>
<td>3</td>
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<tr>
<td>Elective 5</td>
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Total: 40 semester hours

**Registering:** Log into MyUI ([https://myui.uiowa.edu/my-ui/home.page](https://myui.uiowa.edu/my-ui/home.page)) with your HawkID and password. Click on Courses/Registration in the yellow bar at the top and search for courses. Click the Enroll button to register.

**Schedule Advising Meeting:** MyUI / Student Information / My Appointments / Select Advisor and Choose a Time

**Degree Audit:** Academic planning tool to review progress toward degree completion. MyUI / Student Information / Degree Audit. IP means in progress. + will show once completed.

**Course waiver:**
Waiver of a core course does not reduce credit hours required for the degree—the waived course is replaced by an additional elective. To receive a waiver, contact your advisor at least two weeks prior to the start of the semester of the course you are seeking to waive.

A student may waive BAIS:9100 Data and Decisions if as a Tippie undergrad the student received a grade of B or better in one of the following courses and an A– or better in at least one:

- BAIS:2800 Business Analytics or ECON:2800 AND
- Another class that uses Excel and statistics, including MKTG:3100 Marketing Research, ACCT:4100 Auditing, BAIS:3500 Data Mining, BAIS:3800 Optimization and Simulation Modeling, or ECON:3355 Econ and Business Forecasting. Request approval for additional coursework from advisor.

Tippie Business Analytics and Information Systems (BAIS) undergraduate majors may be able to waive the following:

- BAIS:3020 Computational Thinking (minimum grade A-) waives BAIS:6040 Data Programming in Python
- BAIS:3200 Database Management (minimum grade A-) waives BAIS:6050 Data Management
- BAIS:3500 Data Mining (minimum grade A-) waives BAIS:6070 Data Science

*Students from other colleges or majors, please contact your advisor to inquire about a possible waiver.
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Consult MyUI for current course offerings and timing for a given semester, to check restrictions and prerequisites, and for course descriptions: https://myui.uiowa.edu/my-ui/courses/dashboard.page

To request that a course not on this list be approved for MSBA credit, contact your advisor at least two weeks prior to the start of the semester; a syllabus will likely be requested for review. Courses in BOLD are strongly recommended. Note that not all BAIS courses are offered every year.

Approved Electives

BAIS:4280 Cybersecurity (SPR)
BAIS:6060 Data Analysis with R (SPR)
BAIS:6100 Text Analytics (SPR)
BAIS:6105 Social Analytics (FA)
BAIS:6110 Big Data Management and Analytics (SPR)
BAIS:6130 Applied Optimization (FA)
BAIS:6400 Cloud Computing (FA/SPR)
BAIS:6610 Data Leadership and Management (FA)
BAIS:9210 Intro to Modeling with VBA (SPR)
BIOS:5120/STAT:5610 Regression Modeling & ANOVA in Health Sciences
BIOS:5310/STAT:5810 Research Data Management
CS:3210 Programming Languages and Tools
CS:4420 Artificial Intelligence
CS:4470 Health Data Analytics
CS:5110 Intro to Informatics
CS:5110 Intro to Informatics
ECE:5490 Multi-Dimensional Image Analysis Tools
ECON:4800 Econometric Analysis
ECON:5800 Econometrics
EPI:5200 Principles of Public Health Informatics
FIN:9160 Quantitative Finance and Deep Learning (SPR)
GEOG:3540 Intro to Geographic Visualization
GEOG:4150 Health and Environment: GIS Applications
GEOG:4580 Intro to Geographic Databases
GEOG/IGPI:5540 Geographic Visualization
ISE:3600/STAT:3620 Quality Control
ISE:4172 Big Data Analytics
ISE:6350 Computer Intelligence
JMC:3640 Data Journalism
MATH:4250 Intro to Financial Mathematics
ME:4150 Artificial Intelligence in Engineering
MKTG:9310 Marketing Analytics
PSQF:6209 Survey Research and Design
PSQF:6243 Intermediate Statistical Methods
PSQF:6246 Design of Experiments
PSQF:6250 Computer Packages for Statistical Analysis (not recommend if completed BAIS:6060)
STAT:4100 Mathematical Statistics I
STAT:4101 Mathematical Statistics II
STAT:4200 Applied Statistics I
STAT:4540 Statistical Learning
STAT:4560 Statistics for Risk Modeling
STAT:5100 Statistical Inference I
STAT:5200 Applied Statistics I
STAT:5400 Computing in Statistics
URP:6200/PBAF:6200 Analytic Methods in Planning I
URP:6225 Applied GIS for Planners

Research Oriented
CS:5430 Machine Learning
ECE:5450 Machine Learning
ECON:5805 Statistics for Economics
ISE:6380 Pattern Recognition
ISE:6760 Pattern Recognition for Financial Data
ISE:6780 Financial Engineering and Optimization
ME:4111 Scientific Computing and Machine Learning
STAT:6560 Applied Time Series Analysis
STAT:7400 Computer Intensive Statistics

Business Courses
MSBA Career students may take up to 6 hours of electives from the following list of approved non-analytics business electives. Additional electives in Finance are available for those that complete MBA:8180 or have an undergraduate finance degree with a 3.33 major GPA; contact your advisor.

No prerequisites
ENTR:9800 Entrepene: Advanced Business Planning
MBA:8140 Corporate Financial Reporting (Fall)
MBA:8170 International Environment of the Firm (Fall)
MBA:8180 Managerial Finance (Fall)
MGMT:3200 Individuals, Teams, and Organizations
MGMT:9110 Dynamics of Negotiations (SPR)
MGMT:9150 Nonprofit Organizational Effectiveness I
MGMT:9160 Nonprofit Org Effectiveness II
PSQF:5165 Intro to Program and Project Evaluation

This form is a planning tool only for on-campus, full-time MSBA (Career) students. It does not apply to off–campus professional MSBA students.