M.S. in Business Analytics
Undergraduate to Graduate (MSBA U2G)
Plan of Study, Effective for Entering Class Fall 2024

<table>
<thead>
<tr>
<th>Fall (UG/Grad)</th>
<th>10sh</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:9400:0700 Professional Development Business Acumen (repeated)</td>
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<tr>
<th>Spring (UG/Grad)</th>
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<tr>
<td>BAIS:6070:0700 Data Science</td>
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<tr>
<td>BAIS:8130:0701 Business Communication (repeated)</td>
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<tr>
<th>Fall (Grad)</th>
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<tr>
<td>BAIS:6140 Visual Analytics</td>
<td>3sh</td>
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<tr>
<td>BAIS:8130:0702 Business Communication</td>
<td>1</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>
<td>Elective 3</td>
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<tr>
<th>Spring (Grad)</th>
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<tr>
<td>BAIS:9110:0700 Advanced Analytics</td>
<td>3sh</td>
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<td>BAIS:6120:0700 Analytics Experience</td>
<td>3</td>
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<tr>
<td>BAIS:9400:0700 Professional Development Business Acumen</td>
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<tr>
<td>Elective 4</td>
<td>3</td>
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<tr>
<td>Elective 5</td>
<td>3</td>
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**Total: 40 semester hours**

**U2G Shared Hours:**
- Up to **14 semester hours** of MSBA coursework could be applied to the undergraduate semester hours needed for your bachelor’s degree. MSBA courses count as business elective hours.
- If a BAIS student has not taken a major core course by the U2G year, then the equivalent graduate level course should be taken and count toward the undergraduate and graduate degrees. If the BA or IS elective has not been completed, it could be fulfilled by taking a BAIS:6000+ course in the U2G year. Consult your advisor for complete details.

**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.

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.
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.
- For Tippie Business Analytics U2G students ONLY: BAIS:2800 Business Analytics (minimum grade B) waives BAIS:9100 Data and Decisions

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.
M.S. in Business Analytics (Career)

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:6210 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
ECE:5490 Multi-Dimensional Image Analysis Tools
ECON:4800 Econometric Analysis
ECON:5800 Econometrics
EPID:5200 Principles of Public Health Informatics
FIN:9160 Quantitative Finance and Deep Learning (SPR)
GEOG/IGPI:5540 Geographic Visualization
GEOG:3520 GIS for Environmental Studies
GEOG:3540 Intro to Geographic Visualization
GEOG:4150 Health and Environment: GIS Applications
GEOG:4580 Intro to Geographic Databases

Research Oriented

CS:5430 Machine Learning
ECE:5450 Machine Learning
ECON:5805 Statistics for Economics
ISE:6380 Deep Learning
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

GEOG:3540 Intro to Geographic Visualization
GEOG:4150 Health and Environment: GIS Applications
GEOG:4580 Intro to Geographic Databases

BAIS:4280 Cybersecurity (SPR)  GEOG/IGPI:5540 Geographic Visualization
BAIS:6060 Data Analysis with R (SPR)  ISE:3600/STAT:3620 Quality Control
BAIS:6100 Text Analytics (SPR)  ISE:4172 Big Data Analytics
BAIS:6105 Social Analytics (FA)  ISE:6350 Computer Intelligence
BAIS:6110 Big Data Management and Analytics (SPR)  JMC:3640 Data Journalism
BAIS:6130 Applied Optimization (FA)  MATH:4250 Intro to Financial Mathematics
BAIS:6400 Cloud Computing (FA/SPR)  ME:4150 Artificial Intelligence in Engineering
BAIS:6210 Data Leadership and Management (FA)  MKTG:9310 Marketing Analytics
BAIS:9210 Intro to Modeling with VBA (SPR)  POLI:3001 Hawkeye Poll
BIOS:5120/STAT:5610 Regression Modeling & ANOVA in Health Sciences  PSQF:6209 Survey Research and Design
BIOS:5310/STAT:5810 Research Data Management  PSQF:6243 Intermediate Statistical Methods
CS:3210 Programming Languages and Tools  PSQF:6246 Design of Experiments
CS:4420 Artificial Intelligence  PSQF:6250 Computer Packages for Statistical Analysis
CS:4470 Health Data Analytics (not recommend if completed BAIS:6060)  STAT:4100 Mathematical Statistics I
CS:5110 Intro to Informatics  STAT:4101 Mathematical Statistics II
ECE:5490 Multi-Dimensional Image Analysis Tools  STAT:4200 Statistical Methods and Computing
ECON:4800 Econometric Analysis  STAT:4540 Statistical Learning
ECON:5800 Econometrics  STAT:4560 Statistics for Risk Modeling
EPID:5200 Principles of Public Health Informatics  STAT:5100 Statistical Inference I
GEOG:3520 GIS for Environmental Studies  STAT:5400 Computing in Statistics
GEOG:3540 Intro to Geographic Visualization  URP:6200/PBAF:6200 Analytic Methods in Planning I
GEOG:4150 Health and Environment: GIS Applications  URP:6225 Applied GIS for Planners
GEOG:4580 Intro to Geographic Databases

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 Entrepre: 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

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