

M.S. in Business Analytics (Career)

Plan of Study, Effective for Entering Class Fall 2024

Fall	13sh
BAIS:9100:0700 Data and Decisions	3sh
BAIS:6050:0700 or 800 Data Management	3
BAIS:6040:0700 Data Programming in Python	3
BAIS:6140 Visual Analytics	3
BAIS:9400:0700 Professional Development Business Acumen (repeated)	1
Spring	14sh
BAIS:9110:0700 Advanced Analytics	3sh
BAIS:6070:0700 Data Science	3
BAIS:9400:0700 Professional Development Business Acumen	1
BAIS:8130:0701 Business Communication (repeated)	1
Elective 1	3
Elective 2	3
Fall	13sh
BAIS:6120:0700 Analytics Experience	3sh
BAIS:8130:0702 Business Communication	1
Elective 3	3
Elective 4	3
Elective 5	3
Total: 40 semester hours	

Registering: Log into MyUI (<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:6210 Data Leadership and Management (FA)
BAIS:9210 Data Modeling & Automation (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: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/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
 POLI:3001 Hawkeye Poll
 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 Statistical Methods and Computing
 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

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