

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

Fall (UG/Grad)	10sh
BAIS:9100:0700 Data and Decisions	3sh
BAIS:6050:0700 or 800 Data Management	3
BAIS:6040:0700 Data Programming in Python	3
BAIS:9400:0700 Professional Development Business Acumen (repeated)	1
Spring (UG/Grad)	4sh
BAIS:6070:0700 Data Science	3sh
BAIS:8130:0701 Business Communication (repeated)	1
Fall (Grad)	13sh
BAIS:6140 Visual Analytics	3sh
BAIS:8130:0702 Business Communication	1
Elective 1	3
Elective 2	3
Elective 3	3
Spring (Grad)	13sh
BAIS:9110:0700 Advanced Analytics	3sh
BAIS:6120:0700 Analytics Experience	3
BAIS:9400:0700 Professional Development Business Acumen	1
Elective 4	3
Elective 5	3
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>) 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.
- **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: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 Entrep: 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