

M.S. in Business Analytics
Undergraduate to Graduate (MSBA U2G)
Plan of Study, Effective for Entering Class Fall 2023

Fall (UG/Grad)	10sh
BAIS:9100:0700 Data and Decisions	3sh
BAIS:6050:0700 or 800 Data Management and Visual Analytics	3
BAIS:6040:0700 Data Programming in Python	3
BAIS:9400:0700 Professional Development Business Acumen	1
Spring (UG/Grad)	4sh
BAIS:6070:0700 Data Science	3sh
BAIS:8130:0701 Business Communication	1
Fall (Grad)	13sh
BAIS:6120:0700 Analytics Experience or Elective	3sh
BAIS:8130:0702 Business Communication (repeated)	1
Elective 1	3
Elective 2	3
Elective 3	3
Spring (Grad)	13sh
BAIS:9110:0700 Advanced Analytics	3sh
BAIS:9400:0700 Professional Development Business Acumen (Repeated)	1
BAIS:6120:0700 Analytics Experience if not yet taken or Elective	3
Elective 5	3
Elective 6	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.

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 & Visual Analytics
- 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

BAIS:6060 Data Analysis with R

BAIS:6100 Text Analytics

BAIS:6105 Social Analytics

BAIS:6110 Big Data Management and Analytics

BAIS:6130 Applied Optimization

BAIS:6140 Information Visualization

BAIS:6400 Cloud Computing

BAIS:6210 Data Leadership and Management

BAIS:9210 Intro to Modeling with VBA

ACCT:9170 Advanced Accounting Analytics

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

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

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:9165 Digital Marketing Analytics

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

Research Oriented

CS:5430 Machine Learning

CS:5980 Deep Learning

ECE:5450 Machine Learning

ECON:5805 Statistics for Economics

ISE:6380 Deep Learning

ISE:6720 Nonlinear Optimization

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 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:9150 Nonprofit Organizational Effectiveness I

MGMT:9160 Nonprofit Org Effectiveness II

PSQF:5165 Intro to Program and Project Evaluation