### MINOR IN DATA ANALYTICS

The minor in Data Analytics requires 18-23 semester credit hours.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>QMST 2300</td>
<td>Introduction to Analytics</td>
<td>3</td>
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</tbody>
</table>

#### Statistics Courses

Choose 3-4 hours from the following: 3-4

- AG 3352: Quantitative Methods in Agricultural Economics
- CJ 3347: Statistics For Criminal Justice
- GEO 3301: Research Methods in Geography
- HDFS 2311: Statistics and Data Analysis for Human Development and Family Sciences
- HP 3325: Healthcare Statistics
- IE 3320: Engineering Statistics
- MATH 2328: Elementary Statistics
- MATH 3305: Introduction to Probability and Statistics
- PA 3311: Analytical Techniques
- PH 3315: Statistics in Public Health
- PS 3315: Quantitative Research in Political Science
- PSY 2301 & PSY 2101: Introduction to Statistics and Introduction to Statistics Laboratory
- SOCI 3307: Statistics for the Behavioral Sciences
- QMST 2333: Business Statistics

#### Computing/Programming Courses

Choose 3-4 hours from the following: 3-4

- AG 4371X: Data Analysis and its Application in Agriculture
- CS 1342: Programming for Scientists and Engineers
- CS 1428: Foundations of Computer Science I
- GEO 4420: GeoProgramming
- HIM 4331: Research and Data Analytics for HIM
- PHYS 2230: Introduction to Computational Modeling for Physics
- QMST 3341: Computational Methods for Analytics

#### Algorithms/Data Mining Courses

Choose 3-4 hours from the following: 3-4

- CS 4315: Introduction to Data Mining and Information Retrieval
- EE 4331: Introduction to Machine Learning for Engineering Applications
- GEO 4412: Digital Image Processing and Machine Learning
- IE 4340: Non-Linear Optimization Techniques
- IE 4342: Advanced Linear and Integer Programming
- PHYS 3418: Methods in Observational Astrophysics
- QMST 3339: Data Mining and Visualization

#### Prescribed Electives

Choose 6-8 hours from the following: 6-8

- ACC 3323: Data Analytics for Accounting
- AG 4382: Agricultural Price Analysis
- ARTC 4314R: Information and Data Visualization
- BIO 4425: Biometry
- CHEM 3276: Experimental Biochemistry
- CHEM 3380: Analytical Biochemistry
- CHEM 3381: Biochemistry Techniques
- CIS 3382: Computer Data Base Systems
- CIS 3389: Programming for Data Processing
- CIS 4349: Advanced Database Management Systems
- CIS 4399: Computer Information Systems Internship
- CS 4332: Introduction to Database Systems
- CS 4346: Introduction to Artificial Intelligence
- CS 4347: Introduction to Machine Learning
- CS 4380: Parallel Programming
- ECO 4313: Econometrics
- ECO 4381G: Empirical Data Analysis
- EE 3326: Numerical and Scientific Data Analysis Using Python
- EE 4332: Introduction to Computer-Aided Engineering Simulation on HPC Systems
- FCS 4303: Research Procedures in Family & Consumer Sciences
- FIN 4380J: Introduction to Finance Analytics
- FM 3330: Fashion Buying Principles I
- FM 4331: Fashion Buying Principles II
- GEO 2420: Introduction to Geographic Information Techniques
- GEO 2426: Fundamentals of Geographic Information Systems
- GEO 2427: Management and Implementation of GIS
- GEO 3411: Maps and Mapmaking
- GEO 3426: Advanced GIS
- GEO 4356: Urban Infrastructure Management
- GEO 4420: GeoProgramming
- GEO 4424: GPS and GIS
- HIM 3311: Databases in Healthcare
- HIM 4320: Principles of Information Governance
- HIM 4331: Research and Data Analytics for HIM
- IE 3305: Introduction to Data Analysis
- IE 3330: Quality Engineering
- IE 3340: Operations Research
- IE 4310: Statistical Design of Experiments
- IE 4330: Reliability Engineering
- IE 4370: Probabilistic Operations Research
- MATH 3305: Introduction to Probability and Statistics
- MATH 3328: Applied Multivariate Statistics
- MATH 3376: Applied Linear Algebra
- MATH 3383: Numerical Analysis I
- MATH 4305: Advanced Probability and Statistics
- MC 4325: Coding and Data Skills for Communicators
- MC 4337: Data Journalism
- ME 4355: Autonomous Systems and Robotics
- MKT 3370: Marketing Research
- MKT 4340: Digital Marketing and Analysis
- NUTR 3303: Research Methods in Nutrition Science
- PH 3370: Epidemiology
- PHIL 4361F: Ethics of Artificial Intelligence and Big Data
- PHYS 4305: Statistical Physics
### Minor in Data Analytics

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PSY 4390R</td>
<td>Intermediate Statistics</td>
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<tr>
<td>QMST 3334</td>
<td>Statistical Modeling</td>
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<tr>
<td>QMST 4314</td>
<td>Decision Analytics</td>
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<tr>
<td>QMST 4320</td>
<td>Data Analytics</td>
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<tr>
<td>SOCI 3318</td>
<td>Applied Data Analysis</td>
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<tr>
<td>SOCI 4308</td>
<td>Quantitative Research Methods</td>
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<tr>
<td>TECH 3364</td>
<td>Quality Assurance</td>
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**Total Hours: 18-23**