College of Science
Academy of Integrated Science
Minor: Data and Decisions

For students graduating in calendar year 2022 and for student date of entry under UG catalog 2020-2021

I. Introductory Restricted Elective (3 credits): Choose one course from the following list. Note, three 1-credit SPIA modules will count as one class for this section.

ACIS 1504 Introduction to Business Analytics & Business Intelligence (3)
CS 1014 Introduction to Computational Thinking (3)
Core outcome: Foundational Quantitative and Computational Thinking
Integrative outcome: Ethical Reasoning
FREC 1004/GEOG 1084 Digital Planet (3)
Core outcome: Foundational Quantitative and Computational Thinking
Integrative outcome: Ethical Reasoning
HIST/SOC/STS 2604 Introduction to Data in Social Context (3)
Core outcome: Foundational Quantitative and Computational Thinking;
Critical Thinking in the Humanities
Integrative outcome: Ethical Reasoning; Intercultural and Global Awareness
STAT 1014 Data in our Lives (3)
Core outcome: Foundational Quantitative and Computational Thinking
Integrative outcome: Ethical Reasoning

Three 1-credit SPIA classes:
SPIA 2005 Introduction to Urban Analytics (1)
Core outcome: Advanced Quantitative and Computational Thinking
Integrative outcome: Ethical Reasoning
SPIA 2006 Introduction to Urban Analytics (1)
Core outcome: Advanced Quantitative and Computational Thinking
Integrative outcome: Ethical Reasoning
SPIA 2104 Urban Analytics for Decisions-Making (1)
Core outcome: Advanced Quantitative and Computational Thinking
Integrative outcome: Ethical Reasoning

II. Core Requirements (6 credits):

BDS 2005 Fundamentals of Behavioral Decision Science (3)
Core outcome: Reasoning in the Social Sciences
Integrative outcome: Ethical Reasoning
CMDA 2014 Data Matter (Pre: MATH 1014) (3)
Core outcome: Advanced Quantitative and Computational Thinking
Integrative outcome: Ethical Reasoning
III. Restricted Electives - Applying Data and Decisions (6 Credits): Choose two courses from the following list.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credits</th>
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<tbody>
<tr>
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<tr>
<td>BIT 3434</td>
<td>Advanced Modeling for Business Analytics</td>
<td>(Pre: BIT 2406)</td>
<td>(3)___</td>
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<tr>
<td>BIT 4604</td>
<td>Data Governance, Privacy, and Ethics</td>
<td>(Pre: BIT 2405 or CMDA 2014 or CS 1114)</td>
<td>(3)___</td>
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<tr>
<td>FREC 3004</td>
<td>Environmental Informatics</td>
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<td>(3)___</td>
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<tr>
<td>GEOS/GEOG 4354</td>
<td>Introduction to Remote Sensing</td>
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<td>(3)___</td>
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<td>HIST 2624</td>
<td>Topics in the History of Data in Social Context</td>
<td></td>
<td>(3)___</td>
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<tr>
<td>HIST 3774</td>
<td>Digital History</td>
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<td>(3)___</td>
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<tr>
<td>PSCI 2024</td>
<td>Research Methods in Political Science</td>
<td>(Pre: (PSCI 1014 or PSCI 1014H), (PSCI 1024 or PSCI 1024H))</td>
<td>(3)___</td>
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<tr>
<td>SOC/HDS 2104</td>
<td>Quantitative Approaches to Community Research</td>
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<td>(3)___</td>
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<tr>
<td>SOC 3204</td>
<td>Social Research Methods</td>
<td>(Pre: SOC 1004)</td>
<td>(3)___</td>
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<tr>
<td>STAT 3604</td>
<td>Statistics for Social Sciences</td>
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<td>(3)___</td>
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<tr>
<td>UAP 3024</td>
<td>Urban and Regional Analysis</td>
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IV. Data and Decisions Capstone Requirement (3 credits):

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BIT/MGT 4854</td>
<td>Analytics in Action</td>
<td>(Pre: CMDA 2014, BDS 2005)</td>
<td>(3)___</td>
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Prerequisites
Some courses listed on this checksheet may have prerequisites. Students are required to double check course prerequisites and equivalents. Please see your advisor or consult the Undergraduate Course Catalog for more information.

Acceptable Substitutions:
CS 1014: CS 1114 Introduction to Software Design OR CS 1064 Introduction to Programming in Python OR CS 1054 Introduction to Programming in Java OR CS 1044 Introduction to Programming in C
STAT 3604: STAT 3005 Statistical Methods OR STAT 3615 Biological Statistics OR CMDA 2005 Integrated Quantitative Sciences*

*Note: If CMDA 2005 is taken for an Applying Data & Decisions Restricted Elective, 9 credits of Applying Data & Decisions Restricted Electives will be required for the minor, making the total minor requirements 21.

Minimum GPA
For the courses attempted for this minor, the student must have a GPA of 2.0 or better.

Number of Credits
18 total credit hours are required to complete the minor.