College of Science  
Academy of Integrated Science  
Minor: Data and Decisions  
For students entering under UG catalog 2021-2022

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACIS 1504</td>
<td>Introduction to Business Analytics &amp; Business Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>CS 1014</td>
<td>Introduction to Computational Thinking</td>
<td>3</td>
</tr>
<tr>
<td>FREC 1004/GEOG 1084</td>
<td>Digital Planet</td>
<td>3</td>
</tr>
<tr>
<td>HIST/SOC/STS 2604</td>
<td>Introduction to Data in Social Context</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1014</td>
<td>Data in our Lives</td>
<td>3</td>
</tr>
<tr>
<td>SPIA 2005</td>
<td>Introduction to Urban Analytics</td>
<td>1</td>
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<tr>
<td>SPIA 2006</td>
<td>Introduction to Urban Analytics</td>
<td>1</td>
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<tr>
<td>SPIA 2104</td>
<td>Urban Analytics for Decisions-Making</td>
<td>1</td>
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</tbody>
</table>

II. Core Requirements (6 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BDS 2005</td>
<td>Fundamentals of Behavioral Decision Science</td>
<td>3</td>
</tr>
<tr>
<td>CMDA 2014</td>
<td>Data Matter (Pre: MATH 1014)</td>
<td>3</td>
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</tbody>
</table>
III. Restricted Electives - Applying Data and Decisions (6 Credits): Choose two courses from the following list.

- **BDS 2006** Fundamentals of Behavioral Decision Science  
  (Pre: BDS 2005, ECON 2005, PSYC 1004)  
  Core outcome: Reasoning in the Social Sciences  
  Integrative outcome: Ethical Reasoning  
  (3)

- **BIT 3434** Advanced Modeling for Business Analytics (Pre: BIT 2406)  
  (3)

- **BIT 4604** Data Governance, Privacy, and Ethics (Pre: BIT 2405 or CMDA 2014 or CS 1114)  
  Core outcome: Critical Thinking in the Humanities  
  Integrative outcome: Ethical Reasoning  
  (3)

- **FREC 3004** Environmental Informatics  
  Core outcome: Advanced Quantitative and Computational Thinking  
  Integrative outcome: Ethical Reasoning  
  (3)

- **GEOS/GEOG 4354** Introduction to Remote Sensing  
  (3)

- **HIST 2624** Topics in the History of Data in Social Context  
  Core outcome: Discourse; Critical Thinking in the Humanities  
  Integrative outcome: Ethical Reasoning  
  (3)

- **HIST 3774** Digital History  
  (3)

- **PHS/HNFE 3634** Epidemiologic Concepts of Health and Disease  
  (3)

- **PHS 4064** Modeling Infectious Diseases  
  (3)

- **PSCI 2024** Research Methods in Political Science  
  (Pre: (PSCI 1014 or PSCI 1014H), (PSCI 1024 or PSCI 1024H))  
  (3)

- **SOC/HD 2104** Quantitative Approaches to Community Research  
  Core outcome: Foundational Quantitative and Computational Thinking  
  Integrative outcome: Ethical Reasoning  
  (3)

- **SOC 3204** Social Research Methods (Pre: SOC 1004)  
  (3)

- **STAT 3604** Statistics for Social Sciences  
  Core outcome: Advanced Quantitative and Computational Thinking  
  Integrative outcome: Ethical Reasoning  
  (3)

- **UAP 3024** Urban and Regional Analysis  
  (3)

IV. Data and Decisions Capstone Requirement (3 credits):

- **BIT/MGT 4854** Analytics in Action (Pre: CMDA 2014, BDS 2005)  
  Core outcome: Advanced Discourse  
  Integrative outcome: Intercultural and Global Awareness  
  (3)

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.