Behavioral Decision Sciences

Leading to a Bachelor of Arts, the study of decision making at Brown covers descriptive questions like how people, institutions, and nations make judgments and decisions; normative questions about rationality, such as what constitutes the best judgments and decisions; and prescriptive questions, such as how the process of decision making can be improved to make actual decisions closer to optimal ones. By virtue of its broad interdisciplinary nature, the study of decision making covers work found in a variety of more traditional disciplines including psychology, cognitive science, economics, philosophy, computer science, and neuroscience. Professor Steven Sloman (steven_sloman@brown.edu?) is the concentration advisor. Upon declaring, concentrators are also encouraged to speak with the appropriate area specialist from among those listed here (https://www.brown.edu/academics/cognitive-linguistic-psychological-sciences/behavioral-decision-sciences).

Standard Program for the AB Degree

CLPS Classes:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0220</td>
<td>Making Decisions</td>
<td>1</td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>CLPS 0400</td>
<td>Cognitive Neuroscience</td>
<td></td>
</tr>
<tr>
<td>CLPS 0200</td>
<td>Human Cognition</td>
<td></td>
</tr>
<tr>
<td>CLPS 0700</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>Choose two of the following:</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>CLPS 1470</td>
<td>Mechanisms of Motivated Decision Making</td>
<td></td>
</tr>
<tr>
<td>CLPS 1495</td>
<td>Affective Neuroscience</td>
<td></td>
</tr>
<tr>
<td>CLPS 1730</td>
<td>Psychology in Business and Economics</td>
<td></td>
</tr>
<tr>
<td>CLPS 1760</td>
<td>The Moral Brain</td>
<td></td>
</tr>
</tbody>
</table>

Distribution Requirements:

Select one Introductory Course from the following: | 1 |

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem Solving</td>
</tr>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
</tr>
<tr>
<td>CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>CSCI 0180</td>
<td>Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>CSCI 0190</td>
<td>Accelerated Introduction to Computer Science</td>
</tr>
</tbody>
</table>

Select Two Advanced Courses From: | 2 |

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1410</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>CSCI 1420</td>
<td>Machine Learning</td>
</tr>
<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
</tr>
<tr>
<td>ECON 1130</td>
<td>Intermediate Microeconomics (Mathematical)</td>
</tr>
<tr>
<td>ECON 1660</td>
<td>Big Data</td>
</tr>
<tr>
<td>ECON 1820</td>
<td>Theory of Behavioral Economics</td>
</tr>
<tr>
<td>ECON 1870</td>
<td>Game Theory and Applications to Economics</td>
</tr>
<tr>
<td>PHIL 0580</td>
<td>Philosophy of Economics</td>
</tr>
<tr>
<td>PHIL 1550</td>
<td>Decision Theory: Foundations and Applications</td>
</tr>
</tbody>
</table>

Methods Classes:

Choose One From the Following: | 1 |

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>CLPS 0900</td>
<td>Statistical Methods</td>
</tr>
<tr>
<td>CSCI 0100</td>
<td>Data Fluency for All</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>Plus One of the Following:</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1791</td>
<td>Laboratory in Social Cognition</td>
</tr>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
</tr>
<tr>
<td>CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>ECON 1629</td>
<td>Applied Research Methods for Economists</td>
</tr>
<tr>
<td>ECON 1630</td>
<td>Mathematical Econometrics I</td>
</tr>
<tr>
<td>PHIL 0540</td>
<td>Logic</td>
</tr>
</tbody>
</table>

Electives: 3

Students will choose three additional courses in consultation with a concentration advisor that will constitute an integrated specialization in some area of decision science. Such courses might include, but are not limited to:

- Psychology and Cognitive Science
  - CLPS 0950 | Introduction to programming |
  - CLPS 1292 | Introduction to Programming for the Mind, Brain and Behavior |
  - CLPS 1370 | Pragmatics |
  - CLPS 1970 | Directed Reading in Cognitive, Linguistic and Psychological Sciences |

- Economics:
  - ECON 1820 | Theory of Behavioral Economics |
  - ECON 1870 | Game Theory and Applications to Economics |

- Applied Mathematics:
  - APMA 0200 | Introduction to Modelling |
  - APMA 1690 | Computational Probability and Statistics |
  - APMA 2640 | Theory of Probability II |
  - APMA 2821V | Neural Dynamics: Theory and Modeling |

- Philosophy:
  - PHIL 0500 | Moral Philosophy |
  - PHIL 1650 | Moral Theories |
  - PHIL 1750 | Epistemology |

- Computer Science:
  - CSCI 1430 | Computer Vision |
  - CSCI 1460 | Computational Linguistics |
  - CSCI 1951A | Data Science |

- Political Science:
  - POLS 1090 | Polarized Politics |
  - POLS 1150 | Prosperity: The Ethics and Economics of Wealth Creation |
  - POLS 1470 | International Negotiation and Conflict Resolution |

- Public Health:
  - PHP 1740 | Principles of Health Behavior and Health Promotion Interventions |

Capstone: 1

Fall seminar in which students write an integrative paper or do a project covering their areas of study in their senior year.

Total Credits: 13

1 Students may not use the same course to satisfy both the Introductory and Methods course requirements.

Students will be expected to take no more than 6 courses below the 1000-level within the concentration. Students with multiple concentrations may not apply more than 2 courses from a second concentration to the AB in Behavioral Decision Sciences. No more than 2 courses can be transferred from another institution to count toward concentration credit.
**Honors**

Students interested in honors should identify a faculty honor's sponsor and sign up with the concentration advisor during Semester 6. Although there is no minimum grade point average to enter the program, admission to the program is limited to students who have accumulated a strong academic record, and show evidence that they will meet the program's requirements. It is expected that honors candidates will conduct a year-long research project under the direction of a faculty sponsor culminating in a written thesis at the end of Semester 8. Honors theses can serve to satisfy the capstone requirement, although honors students are expected to attend the capstone seminar in the fall of their senior year.
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Helvetica was used instead of Arial.

The editor may contact Leepfrog for a draft with the correct fonts in place.