ARTIFICIAL INTELLIGENCE CONCENTRATION

The Artificial Intelligence concentration is intended to enable students to learn about the principal technologies and methods for programming autonomous behavior on software agents and robots as well as learn about the computational approaches towards solving problems that deemed to require human intelligence. Students will gain knowledge about the reasoning, planning and learning techniques and algorithms used by software agents for natural language understanding, and by robots and game-avatars for problem solving, mobility, and strategic decision making. Taking courses in this track will provide students the essential skills for writing programs for real-world problems that require software programs and robots to mimic human behavior and assist humans in performing complex, risky and tedious tasks. Students will also have an opportunity to participate in national and international AI and game programming competitions and do capstone course projects to explore selective topics in more in-depth manner.

Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Required</td>
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<tr>
<td>CSCI 3450</td>
<td>NATURAL LANGUAGE PROCESSING</td>
<td>3</td>
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<tr>
<td>CSCI 4450</td>
<td>INTRODUCTION TO ARTIFICIAL INTELLIGENCE</td>
<td>3</td>
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<tr>
<td>Electives</td>
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<td>Select 4 courses from the following</td>
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- PHIL 2010 SYMBOLOCIC LOGIC
- CSCI 2510 INTRODUCTION TO GAME PROGRAMMING
- CSCI 3510 ADVANCED GAME PROGRAMMING
- CSCI 3850 FOUNDATIONS OF WEB SEARCH TECHNOLOGIES
- CSCI 4100 INTRODUCTION TO ALGORITHMS
- CSCI 4150 GRAPH THEORY & APPLICATIONS
- CSCI 4250 HUMAN COMPUTER INTERACTION
- CSCI 4470 PATTERN RECOGNITION
- CSCI 4480 ALGORITHMS FOR ROBOTICS
- CSCI 4760 TOPICS IN APPLIED MATHEMATICS
- CSCI 4850 DATABASE MANAGEMENT SYSTEMS
- CSCI 4890 DATA WAREHOUSING AND DATA MINING
- ISQA 4010 BUSINESS INTELLIGENCE
- MATH 4450 INTRODUCTION TO MACHINE LEARNING AND DATA MINING