<table>
<thead>
<tr>
<th><strong>Module Code</strong></th>
<th>CS7IS2</th>
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<tbody>
<tr>
<td><strong>Module Name</strong></td>
<td>Artificial Intelligence</td>
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<tr>
<td><strong>Module Short Title</strong></td>
<td>AI</td>
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<tr>
<td><strong>ECTS weighting</strong></td>
<td>5</td>
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<tr>
<td><strong>Semester/term taught</strong></td>
<td>MT</td>
</tr>
<tr>
<td><strong>Contact Hours</strong></td>
<td>2 Lecture hours per week</td>
</tr>
<tr>
<td><strong>Module Personnel</strong></td>
<td>Dr. Annalina Caputo</td>
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**Learning Outcomes**

On successful completion of this module a student should be able to:
- IS2LO1 Appreciate the scope, applications and limitations of artificial intelligence;
- IS2LO2 Choose and use appropriate representations for various kinds of knowledge;
- IS2LO3 Comprehend and apply search, reasoning and planning strategies;
- IS2LO4 Develop intelligent systems that handle uncertainty;
- IS2LO5 Apply knowledge representation, reasoning, and machine learning techniques to real-world problems in natural language processing, perception or robotics.

**Module Learning Aims**

This module aims to provide students with a thorough overview of the techniques that underlie intelligent systems and an ability to apply these techniques to real-world problems.

**Module Content**

Specific topics addressed in this module include:
- Search;
- Problem solving;
- Knowledge and reasoning – representations, logic, reasoning;
- Classical automated planning;
- Representing and reasoning with uncertainty;
- Learning;
- Introductions to topics in Natural Language Processing, Perception, Robotics.

**Recommended Reading List**


**Module Pre Requisite**

CS7CS4 Machine Learning

**Module Co Requisite**

None
### Assessment Details

- Coursework: 50%
- Exam: 50%

Assessment is by written exam (50%) and coursework (50%). Assignments will provide practical experience, in both theory and programming. The exam for this module will take place in January.