Module Details for THINKING

**Current Record**

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<th>Module Code</th>
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<tr>
<td>Module Name</td>
<td>THINKING</td>
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<tr>
<td>Module Short Title</td>
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<tr>
<td>ECTS weighting</td>
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<tr>
<td>Semester/term taught</td>
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<tr>
<td>Contact Hours</td>
<td>22 Lectures; 103 hours of independent study</td>
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<tr>
<td>Module Personnel</td>
<td>Prof Ruth Byrne</td>
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### Learning Outcomes

On successful completion of this course, for each topic students will be able to:

- Describe the main empirical discoveries about the psychology of human thinking, especially human reasoning, decision-making, and creative problem solving.
- Outline the main theoretical explanations of the psychology of human thinking, including human reasoning, decision-making, and creative problem solving.

### Module Learning Aims

The aim of this module is to provide a foundation in the cognitive science of human thinking, to familiarise students with contemporary experimental evidence and theoretical explanations from the interdisciplinary perspective of cognitive science, including cognitive psychology, philosophy, and artificial intelligence. The module aims to provide (a) an understanding of the conceptual underpinnings of the study of higher level cognition; (b) analyses of various aspects of human thinking, focusing on reasoning, decision making, and creative problem solving; (c) discussion of current challenges in the study of higher level cognition, including the nature of mental representations, and the simulation of cognitive processes.

### Module Content

**Week 1: Human Thinking**

*Lecture 1 Why study thinking*
Lecture 2: How to study the mind

Week 2: Reasoning
Lecture 3: Mental logic and mental models
Lecture 4: The selection task

Week 3: Reasoning
Lecture 5: Intuition and reason
Lecture 6: Moral judgments

Week 4: Reasoning
Lecture 7: The 246 task
Lecture 8: Mental simulation

Week 5: Decision-making
Lecture 9: Decision-making in action
Lecture 10: Base rates and representativeness

Week 6: Decision-making
Lecture 11: Availability and frequency
Lecture 12: Risky choices and loss aversion

Week 7: Problem solving
Lecture 13: Concepts and categories
Lecture 14: Schemas

Week 8: Problem solving
Lecture 15: Problem spaces and search
Lecture 16: Expertise

Week 9: Problem solving
Lecture 17: Insight
Lecture 18: Human Thought

Recommended Reading List

Further information on other readings and resources for each lecture are provided for students enrolled on the course in the lectures and on the course website.

Module Pre Requisite
None
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<tr>
<td><strong>Module Co Requisite</strong></td>
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