Reasoning and Decision-Making

Module description
This module is about critical thinking and the psychology of reasoning and decision making. It is a practical course that is designed to improve clear, precise, purposeful thinking. It applies theory and research from the field of cognitive psychology.

The module asks questions such as: What is the scientific evidence that thinking can be improved? What is the impact of emotion in our thinking processes? What role does commercialisation play in compromising our thinking?

Students will explore theories and techniques for the objective analysis of arguments and explore ideas about creative thinking and curiosity.

This module aims to:
- critical understanding of the theories and evidence in the field of cognitive psychology that are relevant to reasoning, decision-making and critical thinking
- disposition for planned, purposeful thinking and learning
- abilities in ‘metacognitive’ monitoring and reflection on their own knowledge and thinking and its limitations and biases
- ability to transfer the skills they learn to their performance in academia and beyond

Learning outcomes
On completion of this module, students will be able to:
- critically evaluate the evidence for the trainability of thinking skills and performance
- critically evaluate the principles of effective reasoning, decision making and critical thinking
- analyse the anatomy of an argument and apply this understanding in a case study assignment
- apply acquired critical thinking skills in reflective practices and case study assignments

Syllabus
- Reasoning
- Analysing arguments
- Likelihood and uncertainty
- Decision making and problem solving
- Creative thinking
- Storing and retrieving knowledge
- Reasoning under uncertainty with probabilities
- Cognitive biases
- The influence of emotion on cognition

Learning and teaching methods
The pedagogical approach for this module is informed through the principles of collaborative enquiry, constructionism and scientific apprenticeship.

Collaborative enquiry is supported through our internet-mediated learning platform that aims to develop a learning community and support dialogue and collaboration between students. This is encouraged through online peer discussion and debate to construct a unique learning experience that enhances students’ subject understanding through social interactions and empowers them to explain their understandings, and receive feedback from tutors and peers.

Learning through scientific apprenticeship will take place through the integration of scientific knowledge, principles and experience through reflective practice.

Teaching will be delivered through the provision of specified reading materials that will be provided on the University of Essex Online learning platform, and will be supported by specified discussion forums, pre-recorded lecturecasts and biweekly online question and answer sessions (using synchronous communication software and application sharing facility).

Students will be provided with indicative guidance on, and encouraged to look at relevant websites which are appropriate to the learning outcomes, and to identify and share appropriate web-based resources (as learning support references) with their fellow students.

The pre-recorded lecturecasts and the online question and answer sessions will include referenced use of selected case studies which will be drawn from the reading materials and the practice-based and professional/educational contexts and experience of the tutors.

Self-managed learning will supplement lectures and students will be given direction on required and indicative reading.

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<tr>
<th>Description of unit of assessment</th>
<th>Length/Duration</th>
<th>Submission date</th>
<th>Weighting</th>
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<tbody>
<tr>
<td>Collaborative learning question: Post a 500-word response to a tutor posed question. Respond to two of your peer’s posts (250 words per response). Your answers must be evidence based and supported with psychological literature.</td>
<td>1,000 words</td>
<td>Unit 2-3</td>
<td>30%</td>
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<tr>
<td>Case Study</td>
<td>1,500 words</td>
<td>Mid module</td>
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<td>Reflective practice</td>
<td>1,500 words</td>
<td>End of module</td>
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