

## Module Details for MAKING SENSE OF ACTION

### Current Record

<b>Module Code</b>	PSU34610
<b>Module Name</b>	MAKING SENSE OF ACTION
<b>Module Short Title</b>	Making Sense of Action
<b>ECTS weighting</b>	5
<b>Semester/term taught</b>	One semester: Michaelmas Term
<b>Contact Hours and Indicative Student Workload</b>	11 lectures; 109 hours independent study.
<b>Module Coordinator/Owner</b>	<b>Lecturer:</b> Prof. Richard Carson
<b>Learning Outcomes</b>	<p><b>On successful completion of this course, students will be able to:</b></p> <ul style="list-style-type: none"><li>· Demonstrate an understanding of the scientific principles that govern the relationships between action, and perception and cognition. PO [1,2,5].</li><li>· Be able to outline and critically evaluate the conceptual and neurobiological links between development, adaptation, and learning in the domains of action, perception and cognition. PO [1,2,3,5].</li><li>· Show an appreciation of the key theoretical frameworks, observations and conclusions that are relevant to the study of the relationships between action, and perception and cognition, and be able to critically analyse this knowledge within a wider socio-historical and intellectual context. PO [1,2,3,5].</li><li>· Describe, and be able to appraise the strengths and limitations of a variety of experimental techniques and research methodologies that are used in studying the relationships between action, and perception and cognition. PO [3,5].</li><li>· Exhibit the ability to analyse and critically evaluate original research from a range of disciplines including the neurosciences, and cognitive science. PO [3,5].</li></ul>

- Have an awareness of the ethical issues, and those relating to values and diversity of experience that are relevant to this field of enquiry. PO [8].
- Speak and write effectively in discourse concerning the relationships between action, and perception and cognition. PO [2,5,7].

#### Methods of Teaching and Student Learning

The format of lectures is conventional but students are encouraged to ask questions and to engage the lecturer in discussion where practicable. Both the reduced numbers in these optional modules and the fact that the module is based in the lecturer's own area of research expertise and interest facilitates increased class discussion and debate.

Inclusive curriculum: Each lecture and any supporting and accompanying documentation is posted on our school website to facilitate independent study and self-paced learning.

#### Module Learning Aims

#### **Rationale and Aims**

This module will cover approaches to understanding perception and cognition, from the perspective that these functions can only be considered sensibly in an action context. Consideration will be given to exemplars drawn from various areas of psychology that serve to illustrate the role of movement in aspects of perception and cognition regarded traditionally as being independent of the means of effect. The module will deal with observations defined at the level of behaviour. It will also include evidence drawn from the neurosciences - concerning brain activity subserving perception, cognition and motor function, that bears upon these issues. In addition, consideration will be given to some of the related philosophical questions that are raised. The student is also introduced to the possibility that intervention strategies thus informed, may be used to maintain or enhance cognitive performance.

#### **For whom is the module intended?**

Psychology Junior & Senior Sophister SH/TSM students and Higher Diploma in Psychology Years 1& 2 students.

#### **How does it fit in to the academic programme?**

This module provides advanced coverage of material in some of the essential aspects of the discipline of psychology and is required to be covered by the professional accreditation body, Psychological Society of Ireland.

**From a teaching point of view, what are the intentions of the lecturer?**

To provide students with an in-depth understanding of the intimate links that exist between action systems (including behavioural/functional, physiological and anatomical aspects of movement control) and the domains of perception and cognition.

**Module Content**

- 1: A case in point: sensory substitution
- 2: An enactive perspective on sensory development
- 3: Exemplary perception: proprioception and kinaesthesia
- 4: The notion of direct perception
- 5: Sensorimotor adaptation and learning
- 6: Robots and vehicles
- 7: What's in a tool?
- 8: Sensorimotor circuits as a cortical basis for language
- 9: The concept of embodied cognition
- 10: Active cognitive rehabilitation
- 11: Extended cognition

**Recommended Reading List**

**Recommended text(s)**

Tresilian, J.R. (2012) Sensorimotor Control and Learning: An introduction to the behavioral neuroscience of action. Palgrave Macmillan.

As this is an advanced research-led taught module, state-of-the-art and up-to-date journal articles from the relevant research literature will be made available throughout the module.

**Module Pre-requisite**

Cognate foundation modules.

**Module Co Requisite**

<b>Assessment Details@I-MOD- ASSM</b>	TBC
<b>Module Website</b>	
<b>Module approval date</b>	
<b>Approved By</b>	
<b>Academic Start Year</b>	
<b>Academic Year of Data</b>	2018/19