

## COURSE SPECIFICATION DOCUMENT

<b>Academic School/Department:</b>	Psychology
<b>Programme:</b>	Psychology
<b>RQF Level:</b>	3
<b>Course Title:</b>	Scientific Reasoning in Psychology
<b>Course Code:</b>	PSY 3102
<b>Student Engagement Hours:</b>	120
Lectures:	30
Seminar / Tutorials:	15
Independent / Guided Learning:	75
<b>Credits:</b>	12 UK CATS credits 6 ECTS credits 3 US credits

### **Course Description:**

Scientific reasoning underpins most contemporary research in psychology. This course introduces students to scientific concepts, their development and impact on the field of psychology. Students will engage with critical reading and analysis of psychological scholarly work and develop a working knowledge of the application of design principles and statistical reasoning within psychological research.

### **Prerequisites:**

None

### **Aims and Objectives:**

The primary aim of this module is to encourage critical reading and analysis of psychological scholarly work investigating experience and behaviour, culminating in an ability to conduct research under supervision. The focus will be on all aspects of the scholarly work, including the introduction, the methods and appropriateness of the research design, the statistical analyses and their report in the results section, and finally the interpretation of the results and description of the

limitations of the study in the discussion. The critical reading of papers and identification of both positive and negative aspects will be central in this course. Students will be encouraged to work independently, manage their own learning, and apply close reading, synthesis and critical evaluation of documents.

### **Programme Outcomes:**

Psychology: 3A.i, 3B.i, 3C.i, 3D.i

A detailed list of the programme outcomes are found in the Programme Specification.

This is located at the archive maintained by Registry and found at:

<https://www.richmond.ac.uk/programme-and-course-specifications/>

### **Learning Outcomes:**

By the end of this course, successful students should be able to:

- Develop an understanding of the role of empirical evidence in the creation and constraint of theory.
- Demonstrate a critical awareness of how theory guides the collection and interpretation of empirical data.
- Develop the ability to critically evaluate a range of research methods for investigating experience and behavior.
- Deploy analytical skills and evaluate evidence in relation to the theoretical underpinnings, research findings, and applications.

### **Indicative Content:**

- Evolution of the human mind
- Phases of scientific thinking
- Science, pseudoscience and anti-science
- Theory formation, zeitgeist and confirmation bias
- Relationship between theory and empirical evidence
- Description vs critical analysis in psychology
- Psychology research ethics
- Statistical reasoning
- Critical evaluation of scholarly work

### **Assessment:**

This course conforms to the University Assessment Norms approved at Academic Board and located at: <https://www.richmond.ac.uk/university-policies/>

### **Teaching Methodology:**

The course material will be covered in the following ways:

- I. Lecture presentations with the key concepts
- II. Group discussions on journal articles

- III. Internet sites related to psychology
- IV. Videos and On-line experiments
- V. Intra-net access to lecture notes and reading material

**Bibliography:**

***Indicative Text(s):***

Feist, G. J. (2006). *The Psychology of science and the origins of the scientific mind*. London: Yale University Press.

***Journals***

- Scientific American Mind
- Cognition
- Psychology, Public Policy and Law
- Journal of Personality and Social Psychology
- Frontiers in Human Neuroscience
- Metacognition and Learning
- Psychological Science
- Developmental Psychology
- Ethical Human Psychology and Psychiatry

***Web Sites***

See syllabus for complete reading list.

Please Note: The core and the reference texts will be reviewed at the time of designing the semester syllabus.

Change Log for this CSD:

Major or Minor Change?	Nature of Change	Date Approved & Approval Body	Change Actioned by Registry Services
Major	Change of level	09.11.21, Psychology Department	
	Revision – annual update	May 2023	