C8304 Cognition

20 credits

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Academic Level:	Year 3

Aims:

The rationale for this course is to introduce students to some of the core topics in perception, language, thinking, learning and memory, and to explore the key theoretical debates within these areas. This class is aligned to the British Psychological Society's QE syllabus and covers key areas within cognition required for gaining Graduate Basis for Registration. It builds on material introduced in the second year Psychology class on *Cognition and Neuropsychology* and in particular it develops the areas of thinking, language and memory as well as examining the relationships between subjective sensation and cognitive evaluation.

The aims are:

i. to provide students with a broad based knowledge and understanding of attention, perception, language, thinking, learning and memory.
ii. to provide an historical overview of major theories and concepts.
iii. to introduce students to laboratory techniques and to provide them with the basic practical skills needed to assess human cognition.
iv. to develop skills relating to the systematic acquisition of factual information and data.
v. to develop the ability to solve problems and to analyse, interpret, and discuss factual information and data critically.

The class will develop critical thinking skills through the exposition of debates in the formal staff-led sessions and through the guided readings of key chapters and papers. The practical element of the class is designed to help students develop skills in designing, running, analysing and reporting experiments. These tasks are aimed at promoting transferable skills such as discussing and formulating arguments, summarizing, and presenting materials.

Content:

Attention. The Load Theory of Selective Attention and Cognitive Control will be described and different types of perceptual load paradigms will be explored. The concepts of inattentional blindness and deafness will be introduced and research in this area evaluated. Additionally, individual differences in distractibility (external distraction) and mind wandering (internal distraction) will be discussed.

Face and object perception. This section will evaluate theories of object perception and consider how we perceive and recognise faces. There will be a specific focus on how perceptions can be biased in eyewitness testimonies.

Learning. The concepts of implicit vs explicit learning will be introduced, bringing in the relationship with skill learning.

Thinking. This section will discuss three broad topics: a) Probabilistic reasoning, including dual-systems theory and natural frequency theory; b) Problem-solving, including information processing approaches and basic AI reasoning; c) Deductive reasoning and biases in reasoning.

Language. This section will discuss three broad topics: a) Word production, contrasting influential word production models; b) Sentence production, exploring important factors that underlie the choice of different sentence structures; c) Sentence comprehension, evaluating major theories of sentence processing.

Memory. Models of long term and working memory will be described and evaluated. Recent views about their link to executive functioning will be discussed.

Structure:
A total of 28 interactive lecture sessions will be delivered by a teaching team. Sessions will include lectures, practical labs, small group discussions, tasks designed to illustrate key points, demonstrations and practical examples. There will one compulsory practical session where students will participate in an experiment. Students will then be required to carry out statistical analyses on the group's data and write a report. Students will also be required to work in groups on a topic and to create a podcast or report which summarises their findings. Finally students will be given the opportunity to review their learning via practice quizzes on MyPlace every two weeks.

Learning outcomes:
Cognitive skills
i. to develop the ability to critically evaluate theories and models in cognitive psychology.
ii. to develop the ability to evaluate and discuss scientific papers in the areas of perception, language, thinking, learning and memory.
iii. to develop the ability to critically evaluate methods and paradigms commonly found in the cognition literature.
iv. to develop the ability to solve problems and to analyse, interpret, and discuss factual information and data critically.

Knowledge and understanding
v. to provide the student with a broad-based knowledge and understanding of perception, language, thinking, attention, learning and memory.
vi. to provide students with an historical perspective of major theories and concepts within this area.

Practical skills
vii. to improve practical skills associated with carrying out experiments.
viii. to develop communication and teamwork skills through peer collaboration group work.
ix. to develop skills relating to the systematic acquisition of factual information and data.
x. to improve transferable skills such as discussing and formulating arguments, summarizing, and presenting material.
xi. to practice report writing skills.

Teaching methods:
Lectures and workshops. There will also be 4 practice revision quizzes designed to help students manage their revision throughout the semester. These will be released on MyPlace every two weeks, starting in Week 3 then in Week 5, Week 7 and Week 9. These quizzes are not assessed or weighted, but they are highly recommended as frequent retrieval and self-testing leads to more effective learning.

Contact hours:
Three hours per week during semester 2.

Assessment and Feedback
The assessment for this class is designed to support, and measure, students' learning of the class material. The criteria for assessing students' work are available on Myplace.

Assessment	Weighting	Marking criteria	Feedback	Due
Report based on practical lab	40%	Details On Myplace	Individual written feedback plus general feedback to whole class	Wednesday 21st February, Week 6.
Research participation: Credits/Essay	5%	Details On Myplace	Only pass/fail information provided	Friday 29th March, Week 11.
Written Exam	55%	Details on Myplace	N/A	Semester 2 exam period

Note there is also a group eyewitness assignment due Friday 22nd March at 1pm. This assignment is not weighted.

Assessment Resit Information
If the module is failed, the resit examination will take the form of the assessment that was failed i.e. either another report or another exam. No resit attempt is available for the research participation component. Your final module score would be the resit mark (capped at 40% if a second attempt) combined with the mark from your other assignment that you had passed. If both assignments are failed, both of these would have to be repeated.

Feedback:
Students will receive both generic feedback on class performance and detailed, written feedback on practical reports. Generic feedback will also be provided upon completion of pod-cast/report group work. Feedback, however, comes in many forms and at various points: when a discussion post is responded to, this is feedback; when you email a member of staff and they reply, this is feedback; a response to a question before, after, or during a lecture, is feedback! If any feedback is unclear, given the opportunity staff will be happy to clarify it.

Employability:
C8304 provides students with a number of skills which are valued outside of the Undergraduate context. These include: the ability to understand and evaluate research findings in broad theoretical contexts; the ability to present and interpret numerical information in a clear and concise manner; the ability to write clearly, concisely and logically; the ability to work in a group context.

Place in course:
This is a level 3 Psychology class. It will build on material from the level 2 class ***C8201 Cognition & Neuropsychology*** and provide a basis for any level 4 classes that contain elements of theory relating to cognition.

Prerequisite classes:
Pass in ***C8201 Cognition & Neuropsychology.***

Reading:
These are some of the recommended textbooks. There is a full reading list available on MyPlace and additional reading materials will be specified in each lecture.

- *General (electronic access available from the library)*

Braisby, N., & Gellatly, A. (2012). *Cognitive Psychology*, Oxford University Press.

Eysenck, M., & Keane, M. (2015). *Cognitive Psychology: A Student's Handbook,* Taylor & Francis.