Neurolinguistics (PLIN0038)

1. Key information

Faculty: Faculty of Brain Sciences

Teaching department: Division of Psychology and Language Sciences

Credits: 15

Who to contact for more information: pals.lingteachingoffice@ucl.ac.uk

Restriction: This module is not an appropriate elective for MSc Language Sciences students given its overlap with PALS0001. PLIN0003 Introduction to Generative Grammar A, or equivalent.

2. Alternative Credit Options

N/A

3. Module description

This course aims to provide an introduction to the neuroscience of language with a focus on contributions from linguistic theory. The goal of the neuroscience of language is to understand how language is represented and processed in the brain. The module discusses primary research articles organized by weekly topics according to levels of linguistic analysis (phonology, morphology, syntax and semantics). In the first couple of lectures, we will cover background knowledge - anatomy, neurophysiology and neuroimaging techniques – necessary to understand these articles. Some basic linguistic knowledge is assumed (an Introduction to Linguistics module). Learning objectives: Identify key anatomical structures in the brain relevant to language processing; compare and contrast the advantages and disadvantages of the different techniques for studying brain-language relations (i.e., lesion, fMRI, ERP); awareness of language processing paradigms (eg, lexical decision, masked priming, odd-ball); describe key neurolinguistic findings (e.g., the where and when of: phonemic vs acoustic processing, morphological vs semantic priming); and understand the neurolinguistic theories that account for the data (e.g., Decompositional vs Associationism, Tree Pruning Hypothesis, Trace Deletion Hypothesis). There is 2 hr of lecture a week and a 1 hour tutorial that aims to both provide practice with terminology from lecture and extend discussion of the topic to additional languages, paradigms or linguistic distinctions.

The main module aims are:

- To understand basic neurological methods and understand the advantages and disadvantages of each

- Critically read and understand experimental papers on how language is processed and the brain regions responsible

- Understand and describe recent findings from experimental work on language processing considering theoretical linguistics

The intended learning outcomes for the module are:

- Identify key anatomical structures in the brain relevant to language processing - Describe experimental techniques to study language and the brain (i.e., lesion, fMRI, ERP)

- Compare and contrast advantages and disadvantages of the different techniques

- Apply theoretical linguistics to the evaluation of experimental designs and results

- Describe and explain key neurolinguistic findings (e.g., phoneme processing, processing derived words, syntactic processing)

- Describe and critique key neurolinguistic theories (e.g. Tree Pruning Hypothesis, Trace Deletion Hypothesis, Generalized Minimality)

- Relate experimental findings from different areas of language processing

- Make experimental predictions based on neurolinguistic theories

- Design mini experiments to test theoretical predictions

4. Module deliveries for 2019/20 academic year

4.1. Term 2, Undergraduate (FHEQ Level 6)

Mode of study: Face-to-face

Mark scheme: Numeric Marks

Module leader: Dr Andrea Nicole Santi

Assessment pattern:

Assessment description	Weighting	Exam duration	Assessment type
Unseen two hour written examination	75		Written examination (departmentally managed)
Essay (1000 words)	25		Coursework
Coursework	100		Coursework

4.1. Term 2, Postgraduate (FHEQ Level 7)

Mode of study: Face-to-face

Mark scheme: Numeric Marks

Module leader: Dr Andrea Nicole Santi

Assessment pattern:

Assessment description	Weighting	Exam duration	Assessment type
Unseen two-hour written examination	75		Written examination (departmentally managed)

Assessment description	Weighting	Exam duration	Assessment type
One essay (1,000 words)	25		Coursework

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