

## **Advanced Neurolinguistics 2015.**

### **Course description**

This course aims at deepening our understanding of the neural bases of language. It departs from concepts introduced in *Neurolinguistics: An introduction* and provides further details about cortical and subcortical portions of the brain with a main focus on function and connectivity.

Since the course intends to be accessible to the general audience, additional meetings for clarification purposes can be arranged on participants' request.

### ***OBJECTIVES:***

#### **Theoretical:**

- a) Neurolinguistics: current challenges of the discipline.
- b) Neural bases of language.
- c) Functional connectivity.

#### **Practical:**

- a) Critical reading and review of research articles.
- b) Presentation of research articles.

### ***COURSE REQUIREMENTS:***

#### **Evaluation:**

- In-class presentation of a research article (individual or groups (max. 4 students per group)).

Presentations will take place during the last session of the course. Guidelines for presentations will be provided during the first session of the course.

- Final test (to be taken in the regular exam sessions).

**Language requirements:** English is the official language of the course.

## **CONTENTS:**

### **Unit 1.** Introduction.

Introductory vs. advanced neurolinguistics: where are we going?

### **Unit 2.** Redefining neurolinguistics.

Towards a definition of neurolinguistics.  
Major problems of the discipline

#### *Readings:*

Poeppl, D. and D. Embick (2005) Defining the relation between linguistics and neuroscience. In A. Cutler (ed.), *Twenty-first century psycholinguistics: Four cornerstones*. Lawrence Erlbaum.

### **Unit 3.** Neural bases of language and Functional connectivity.

Cortical organization.  
Networks.  
Subcortical structures.  
Neural pathways.

#### *Readings:*

Hickok, G. & D. Poeppel (2007). The cortical organization of speech processing. *Nature Reviews Neuroscience* 8 (5): 393-402.

Friederici, A. (2011). The brain basis of language processing: From structure to function. *Physiological Review* 91: 1357–1392.

*On the last day, together with the presentations, there will be a special session on:*

*Studies in Serbian aphasiology by Srđan Popov (EMCL Consortium, University of Groningen)*

## **GENERAL REFERENCES:**

Ingram, J. C. (2007). *An introduction to spoken language processing and its disorders*. Cambridge Textbooks in Linguistics. Cambridge, New York: Cambridge University Press.

Luria, A. R. (1976). *Basic problems of neurolinguistics*. Den Hague: Mouton.

Stemmer, B. & H. A. Whitaker (eds) (2008). *Handbook of the Neuroscience of Language*. London: Academic Press.