

2021 SCHOOL COURSE DESCRIPTIONS

Introduction to linguistics: Srdjan Popov (Introductory, MONDAY, slot 1)

This introductory course to linguistics is intended for a wide audience, from linguists to students or professionals with no previous linguistic training. The course will cover a number of essential theoretical topics, mainly in the fields of morphology and syntax. The goal of the course is to prepare the students for the courses in psycholinguistics and neurolinguistics. The course is also of interest to (advanced) linguistics students, as it will focus in detail on a number of selected topics that will later be covered from an experimental perspective.

Visual word recognition: Dušica Filipović Đurđević (Introductory, MONDAY, slot 2)

This course will introduce the multitude of variables that have been shown to correlate with the processing of isolated words. It will compare the traditional techniques of data collection to the novel approach of crowdsourcing and mega studies. In addition to presenting empirical findings, the course will present the dominant attempts in explaining the observed effects. Finally, the advantages and the limitations of the study of processing of isolated words will be discussed.

Stages in language acquisition: Mirjana Mirić (Introductory, MONDAY, slot 3)

This course will provide an overview of stages and dynamics of language acquisition at all levels of linguistic structure: phonology, morphology, syntax, lexicon and pragmatics. The focus will be on the milestones at each of the stages in the course of typical language acquisition. Various cross-linguistic data obtained from experimental and corpus studies will be presented.

Information theory in psycholinguistics: Dusića Filipović Đurđević (Advanced, MONDAY, slot 4)

This course will describe the conceptual background of information theory and its application in the study of various language phenomena. At the very start, the basic concepts of information theory will be introduced. Throughout the

course, several information theory measures will be explained and illustrated through presentation of published research which demonstrated their effects in language processing at the levels of phonology, morphology, syntax and semantics.

Experimental methodology: Srdjan Popov (Introductory, TUESDAY, slot 1)

This course is a practical introduction to the understanding, evaluation, and design of controlled online and off-line studies and the gathering of spontaneous speech data together with the main methods of data analysis. The course will cover basic concepts including mean comparisons, variance, statistical significance, sampling, inclusion and exclusion criteria and how to think of an experiment in terms of its participants, apparatus and procedure.

Research methodology in language acquisition: Mirjana Miric (Advanced, TUESDAY, slot 2)

This course will provide an overview of different research methods which are used for exploring various phenomena in the domain of language acquisition. We will present the most suitable corpus and experimental methods for investigating different linguistic phenomena, taking into account that different levels of linguistic structure or different age of children require different methods.

Theoretical approaches to language acquisition: Mirjana Miric (Advanced, TUESDAY, slot 3)

This course will present various theoretical approaches to the phenomenon of typical language acquisition, such as generative, cognitive and socio-cultural. The focus will be on the issues of innateness, universal grammar, poverty of stimulus argument, and critical period for language acquisition.

Language testing and awake brain surgery: Roelien Bastiaanse (Advanced, TUESDAY, slot 4)

Brain tumors can infiltrate in areas that are important for language. The consequence may be that language disorders arise. However, some of these tumors grow very slowly, allowing the brain to reorganize language functions. This means that the neurosurgeon should be informed which cortical and subcortical areas are involved in comprehending and producing language, since these should be spared during resection of the tumor. This can be done before

(although globally) and during the surgery. It is of the utmost importance that relevant language functions are tested. During this class, a number of linguistically motivated tests, specifically developed for language testing in this patient group, will be introduced and their application will be illustrated.

Neuroanatomy for linguists I & II: Silvia Martínez-Ferreiro (Introductory, WEDNESDAY, slots 1 & 2)

The course provides an overview of the main anatomical landmarks involved in speech and language production and comprehension. The course departs from genetics and a broad characterization of the phono-articulatory and the nervous system and deepens into cortical and subcortical structures relevant for language.

Clinical Linguistics I - III: Silvia Martínez-Ferreiro (Introductory, WEDNESDAY, slot 3, THURSDAY, slots 1 & 2)

The course includes an overview of the main communication disorders. There is a focus on the description, assessment and treatment of speech and language pathologies occurring throughout the lifespan. This includes genetic, developmental, acquired, and degenerative conditions.

Hitchhikers' guide to mixed-effect regression models I & II: Seçkin Arslan (Advanced, WEDNESDAY and THURSDAY, slot 4)

This course offers a gentle and accessible introduction to using mixed-effects regression models for psycho- and neurolinguistic data, by providing step-by-step tutorials in R studio. We will be using pieces of sample data from a reaction times experiment for the mixed-effect regression model, and from an eye-tracking experiment for generalized mixed-effect regression model. The course requires no prerequisites; however, we recommend participants to bring along a laptop computer with R and R-studio installed.

Programming experiments with PsychoPy: Seçkin Arslan (Introductory, FRIDAY, slot 1)

PsychoPy is a freely available open-source software tool (created by Jonathan Peirce) that can allow you to program experiments for psychology and linguistics. This tutorial will provide you basic principles of designing a simple experiment using PsychoPy using its builder interface. Following this tutorial,

you will be able to build an experiment on your own laptop ready for data collection. Participants who will attend to this tutorial are kindly asked to install PsychoPy.

Introduction to neuroimaging: Christina Manouilidou (Advanced, FRIDAY, slot 2)

The course will give an introduction to the field of neuroimaging. It will be divided into two parts. The first part will be a short theoretical introduction into neuroscience and neuroimaging, covering all relevant aspects on physiology, neuroanatomy and some of the most relevant functional networks. In the second part, the course will cover the latest developments on electrophysiological (EEG), electromagnetic (MEG) and hemodynamic techniques (fMRI & PET) used in the study of language.

The neuropsychology of name kinds I & II: Carlo Semenza (Advanced, THURSDAY and FRIDAY, slot 3)

(1) Proper vs common names. Old philosophical problems, early observations and new indications from neuroscience.

Single case studies of brain damaged subjects reveal that proper names processing seems to be independent in the brain from processing of common nouns. This happens at various levels of processing (e.g. the semantic level or the access to it). A model can be build of proper name processing based on these observations. The key feature of this model is the relative separation of individual semantics from general semantics. Moreover the data support philosophical theories about the proper names/common nouns distinction. A critical review will be provided of studies about the anatomical underpinnings of these differences in processing.

(2). Mass vs count nouns. A time-honored linguistic distinction meets its neurological underpinnings.

Neuropsychological studies have shown that mass and count nouns differ in their processing at different levels (syntactic, morphological, lexical, semantic). Electrophysiological and neuroimaging evidence was found for at least partial anatomical separation.

The compounding process as a primitive way of augmenting the vocabulary: merging words in the brain. From early aphasiological studies to a modern neurolinguistic approach: Carlo Semenza (Advanced, FRIDAY, slot 4)



International school in
psycholinguistics, neurolinguistics and
clinical linguistics

Neuropsychological and electrophysiological studies provide evidence about:

1. independence of the knowledge of compound status, compound structure, compounding rules from knowledge of phonological form.
2. evidence of de-composition even in opaque compounds.
3. independence (dissociability) from one another of gender assignment mechanisms (rules, sem., lex.).
4. evidence of simultaneous retrieval of components.
5. evidence of simultaneous activations of all meaningful representations (whole and composite).
6. headedness effect can be disentangled from position effect; neural reality of headedness.