

# Semester 1 (University of Groningen)

### **Language and Culture (Dutch)**

Term: First – University of Groningen (RUG) Module: M2 – Language and Culture classes

Teacher(s): Drs. Fros van der Maden

ECTS: 3

Goals: To acquire basic knowledge of the Dutch language and culture (i.e., A1 CEFR level)

Teaching methods: Classes, excursions, practice Assessment: Oral examination (pass/fail)

Short description: Within this course students will learn to use and understand the Dutch language in a very practical context. Meanwhile students will also learn more about the Dutch Culture. This means that the language will not only be learned in classes, but also for example during trips to the supermarket or the

market place, or to one of the Dutch isles.

# Language and speech disorders in adults

Term: First – University of Groningen (RUG) Module: M4 – Neuro-, psycho-, clinical linguistics

Teacher(s): Prof. dr. Roel Jonkers

ECTS: 5

Goals: Getting recent knowledge of acquired language and speech disorders in adults and being able to set up an experiment or test to assess these speakers

Teaching methods: Research class

Assessment: All students develop a relevant experiment or test in their own language. The experiment should be meant to test adult speakers with speech or language problems. The students learn how to develop a tool that can test their hypothesis, how to make a score form, think of the procedure, informed consent etc (25% of the final grade). For the final assignment, there will be essays and oral presentations. We distribute the division of the final assignments over two courses (Language and speech disorders in adults/Language and speech disorders in children). In both of these courses, half of the students will do an oral presentation and the other half will have to write an essay. These final assignments will be marked (75% of the final grade). Short description: In this course recently published and sometimes even unpublished research in the field of aphasia and related language and speech disorders will be presented. Topics that will be covered are syntactic disorders in aphasia, verb processing in aphasia and speakers with dementia, speech perception problems in aphasia, speech production problems in apraxia of speech, Parkinson's dysarthria and the role of speech analysis in the diagnosis of dementia, spontaneous speech analysis and cognitive communication disorders.

#### Language and speech disorders in children

Term: First – University of Groningen (RUG) Module: M4 – Neuro-, psycho-, clinical linguistics

Teacher(s): Dr. Margot Bochane

ECTS: 5

Goals: By the end of this module, students will (1) be aware of the recent advances related to speech and language disorders in children and will (2) be able to implement data analyses techniques on spontaneous speech to characterize language impairments.

Teaching methods: Research class

Assessment: All students conduct a literature review (25% of final grade). For the final assignment (75% of final grade) students will analyse spontaneous speech data obtained from the CHILDES database and report their findings in the form of either an essay or an oral presentation. We distribute the division of the final assignments over two courses (Language and speech disorders in adults/Language and speech disorders in children). In both of these courses, half of the students will do an oral presentation and the other half will have to write an essay. These final assignments will be marked (75% of the final grade).

Short description: In this research module, students will learn about a range of advances in research relevant to the field of developmental language disorders (DLD). Topics include developments in DLD terminology, syntactic and semantic constraints in novel word learning, neural correlates of impairments in verb and sentence processing, language development in adolescents with DLD, language impairments in children with brain tumors, psycholinguistic evaluation of spontaneous speech in DLD, working with the CHILDES database, and understanding and developing diagnostic tests.

### Language testing in awake brain surgery (LTABS)

Term: First – University of Groningen (RUG) Module: M4 – Neuro-, psycho-, clinical linguistics

Teacher(s): Dr. Adrià Rofes

ECTS: 6

Goals: To integrate theory and experimental work in the field of awake surgery; to develop materials and new ideas for research

Teaching methods: MOOC, Research class

Assessment: Popular science article and project abstract (50-60% of final mark); poster, oral presentation and language test sample (40%). A surprise multiple-choice exam may be administered (10%)

Short description: We will explore the origins and relevance of LTABS; types of tasks used before/after and during surgery; the language impairments that patients have; and some of the relations between the awake brain surgery literature and other aphasia literature. We will also learn about practical aspects such as how to design, write instructions, and administer/score a test; neurosurgical and anesthesiologic issues in clinical practice; and advanced research topics in this area.

#### **Neuroimaging and Language**

Term: First - University of Groningen (RUG)

Module: M5 - Neurotechnology and IT for clinical linguistics

Teacher(s): Dr. Srdjan Popov

ECTS: 5

Goals: To acquire basic knowledge of major neuroimaging techniques and their application in language research; to come up with an original language-related research question using event-related potentials Teaching methods: Research class

Assessment: Assessment consists of a test (25%) after the first half of the course and a written research proposal (75%) as the exam.

Short description: The course is split into two halves. In the first half, we will cover the basic neuroanatomy necessary for the course. After that, we will discuss (some of) the major neuroimaging techniques used in language research, for example, fMRI, MEG, EEG/ERPs, TMS... In the first half of the course, the focus will be

on fMRI. The second half of the course will be dedicated to ERPs: their application in the language field and how to prepare a research proposal for an ERP study on language.

# Development of serious games, apps, and virtual reality for language impaired populations

Term: First - University of Groningen (RUG)

Module: M5 - Neurotechnology and IT for clinical linguistics

Teacher(s): Dr. Dörte de Kok

ECTS: 6

Goals: To create a concept for a serious game in the area of speech and language disorders; to be familiar with methods used in game and app design

Teaching methods: Classes, excursions, guest lectures

Assessment: Groups of students will develop a game concept. They will present this concept in a pitch (50% of the grade) and write a written report describing the concept and how it addresses the needs of the target population (50%).

Short description: Modern technologies afford health care professionals and researchers more opportunities to design tests and tools that facilitate diagnostics and intervention. In this course, students are introduced to the fields of app development, serious gaming and VR in order to prepare them to take leading roles in development projects. The course is structured according to the steps of *Design Thinking*. During the course, examples of apps used in the area of clinical linguistics will be introduced as examples, but students will mainly focus on developing their own game concept.



# Semester 2 (University Ghent)

# Diversity of examination types.

#### Statistics and Research Methods in Psycholinguistics

Term: Second - University of Ghent

Module: M3 Methods

Teacher: Prof. dr. Marc Brysbaert

ECTS: 9

Textbooks: Brysbaert, M. (2019). Basic statistics for psychologists. MacMillan.

Winter, B. (2019). Statistics for linguists: An introduction using R. Routledge.In this course students will get a review of the statistics specifically applicable for language research. These will center on descriptive statistics, multiple regression analysis and mixed effects models. Students will learn to run these analyses in R using existing datasets. A separate lecture will be devoted to the issue of power and its implications for replicable research.

#### **Dyslexia**

Term: Second – University of Ghent

Module: M4 - Neuro-, psycho-, clinical linguistics

Teacher: Prof. dr. Marc Brysbaert

ECTS: 4

This course gives a review of normal reading development and dyslexia. Students will learn how dyslexia can be detected and what types of remediation exist. Extra attention will be given to language differences

and evidence from languages other than English. As coursework, students will be required to design a study they can/want to do on the topic.

Textbooks: Snowling, M.J. (2019). Dyslexia: A very short introduction. Oxford University Press. Journal review and research articles

# **Advances in Psycholinguistics**

Term: Second – University of Ghent

Module: M4 – Neuro-, psycho-, clinical linguistics

Teacher: Dr. Robert Hartsuiker

ECTS: 3

This course assumes students already have basic knowledge of psycholinguistics. It discusses 10 "hot topics" in the field, each related to one major domain within psycholinguistics (e.g., speech perception, language development, language production). Each lecture will consist of a brief sketch of the context by the lecturer, followed by a presentation and class discussion of a selected paper.

Course material: selected journal articles

### **Bilingualism**

Term: Second - University of Ghent

Module: M4 - Neuro-, psycho-, clinical linguistics

Teacher: Dr. Robert Hartsuiker

ECTS: 4

In this course students will get a review of research on language processing in bilingualism and second language learning. The students will learn how a bilingual's languages can interact during comprehension or production and whether second language learning conveys cognitive advantages. One lecture will be dedicated to bilingual aphasia.

Course material: Selected journal articles.

#### **Eye-tracking research**

Term: Second - University of Ghent

Module: M5 - Neurotechnology and IT for clinical linguistics

Teacher: Dr. Robert Hartsuiker

ECTS: 3

This is a hands-on course in which students learn about the basics of eye-tracking and see examples of how eye-tracking can be used to answer research questions in psycholinguistics, but in which they are learn to work with an EyeLink 1000+ eye-tracker, including presentation software. Each student will be asked to design and implement an experiment, acquire a small set of pilot data, and perform basic analysis. Course material: Selected journal articles and syllabus

# **Low Countries Studies**

Term: Second - University of Ghent

Module: M2 – Language and Culture classes

Teacher: Dr. Martine de Reu

ECTS: 3

The course, taught at the Faculty of Humanities, offers a broad overview of various aspects of Flemish society (language, art and culture, history, the media, the Flemish landscape, town and country planning, etc ...) and everyday customs in Flanders. All aspects will be dealt with within the broader perspective of Belgium and the Low Countries. The course will consist of lectures and excursions.

Course material: see website: <a href="https://www.ugent.be/lw/lcs/en/aboutthiscourse">https://www.ugent.be/lw/lcs/en/aboutthiscourse</a>

# Computational models in psycholinguistics

Term: Second – University of Ghent

Module: M5 - Neurotechnology and IT for clinical linguistics

Teacher: Dr. Robert Hartsuiker

ECTS: 3

In this course, students will learn about the general principles of computational modelling in cognitive psychology, including neural network models, rule-based models, hybrid models,. We will further discuss a number of seminal models in the field such as the triangle and dual route models of reading, and Dell and Schwartz's models of word naming in healthy and aphasic speakers. As coursework, students will have to design and implement a (small) model of their own in the Python programming language.

Materials: selected articles.



# Semester 3 (University of Eastern Finland)

# **Language and Culture (Finnish)**

Term: Third – University of Eastern Finland, Joensuu (UEF)

Module: M2 – Language and Culture classes

Teacher(s): tba (Language Center)

ECTS: 3

Goals: To acquire basic knowledge of the Finnish language and culture (i.e., A1 CEFR level)

Teaching methods: Classes, excursions, practice

Assessment: Oral examination (pass/fail)

Short description: Within this course students will learn to use and understand the Finnish language in a very practical context. Meanwhile students will also learn more about the Finnish Culture. This means that the language will not only be learned in classes, but also for example during trips to the supermarket or the market place, to Joensuu and its surroundings in the province of Northern Karelia.

#### Python programming for linguistic research

Term: Third - University of Eastern Finland, Joensuu (UEF)

Module: M3 - Methods

Teacher(s): tba (General Linguistics: professor or university lecturer)

ECTS: 3

Goals: Applying a modern scripting language to research

Teaching methods: Flipped classroom (hands-on exercises in class, reading and theory at home)

Assessment: Exercises (20%), written exam (80%)

Short description: The course provides an introduction to a modern scripting language. Students will learn to convert process descriptions into algorithms and to create basic working programs in Python. After the course they will also have basic knowledge about scripting languages in general.

#### Speech technology for speech impairment research

Term: Third - University of Eastern Finland, Joensuu (UEF)

Module: M3 - Methods

Teacher(s): tba (General Linguistics: external teacher)

ECTS: 4

Goals: To compare commonly used experimental paradigms in the field of spoken language research and

apply them in the laboratory

Teaching methods: Project seminar (independent work with regular in-class supervision)

Assessment: Research report (essay and research diary)

Short description: The course includes group work in the laboratory. Students will acquire the necessary skills to conduct independent experimental research, from design and administration of a test to its statistical evaluation and the reporting of its results.

# Articulatory, acoustic and perceptual analysis of speech motor disorders

Term: Third – University of Eastern Finland, Joensuu (UEF) Module: M4 – Neurolinguistics and Clinical Linguistics Teacher(s): tba (General Linguistics: external teacher)

ECTS: 4

Goals: To understand key concepts in phonetics and use standard software in research

Teaching methods: Lectures, Flipped classroom (hands-on exercises in class, reading and theory at home),

excursions (with R&D partners)

Assessment: Exercises (20%), written exam (80%)

Short description: Students learn the basic phonetic and phonological terminology as well as the research areas in acoustic, auditory and articulatory phonetics (particularly: waveform, spectrum, spectrogram, f0, formants, intensity). They are also able to independently work with segmentation and labelling of speech data, editing and manipulation of the speech signal and apply measurements and visualizations using standard software (currently: Praat). Furthermore, they learn how to design and implement listening tests. Practical sessions take place in the computer and speech laboratories.

#### Language and Autism

Term: Third – University of Eastern Finland, Joensuu (UEF) Module: M4 – Neurolinguistics and Clinical Linguistics Teacher(s): tba (General Linguistics: external teacher)

ECTS: 2

Teaching methods: Lectures and excursions (with R&D partners) Goals: Show students the possibilities of research outside academia

Assessment: Written assignment

Short description: Through lectures and excursions, students get insight in the history of autism research, current clinical and linguistic research as well as the clinical etiology and diagnosis of the autism spectrum.

#### **Academic Writing (Thesis Preparation)**

Term: Third – University of Eastern Finland, Joensuu (UEF)

ECTS: 4

Module: M7 – Thesis

Teacher(s): Prof. dr. Michael Rießler (General Linguistics: professor)

Teaching methods: Project seminar (academic text is written and presented with in-class supervision)

Goals: Principles of academic reporting and writing

Assessment: Active participation (fail-pass)

Short description: After completing the course the students are capable of conducting, under supervision, a short research project fit for academic publication. During the course a seminar paper or thesis chapter of approximately 5000 words is completed, presented and discussed with the seminar's audience. Each participant will also function as opponent to at least one other seminar presentation.