### 神経言語学Ⅱ

**曜日・講時/Day/Period**: 前期 金曜日 2講時 113講義室

科目群/Categories:大学院專門科目-国際文化研究科專門科目 (MC), 単位数/Credit(s):2

担当教員/Instructor: JEONG HYEONJEONG

科目ナンバリング/Course Numbering: -E 使用言語/Language Used in Course: 英語

### 1. 授業題目/Class Subject:

Neurolinguistics I

### 2. 授業の目的と概要/Object and Summary of Class:

This course overviews how language is represented in the brain and discusses its implication for language education. Topics to be covered in this course include speech perception, reading, lexical processing, syntax, semantics, discourse and bilingual language processing. Major neuroimaging techniques such as fMRI, EEG/ERP, MEG

# and NIRS will be also introduced. 3. 学習の到達目標/Goal of Study:

### 4. 授業の内容・目的・方法/Contents and Progress Schedule of Class:

概要 We will discuss assigned articles and book chapters.

Overview by instructor and presentation by students.

- 1. Introduction
- 2. Historical overview of language and brain
- 3. Basic brain anatomy and function of human brain
- 4. Methods and techniques of neuroimaging (fMRI, EEG, MEG, NIRS)
- 5. Concept of experiment: How to design experiments

Field trip to neuroimaging lab at IDAC and fMRI scanner

- 6. Speech and phonology
- 7. Visual word processing
- 8. Semantics/meaning of words
- 9. Morphology and Syntax
- 10. Sentence comprehension and production
- 11. Bilingual language processing
- 12. Second language acquisition
- 13. Learning and memory
- 14. Procedural and declarative memory
- 15. Language communication/ Discourse/ Theory of mind

試験 Student' presentation and final paper 5. 成績評価方法/Evaluation Method:

- 1. Presentation (30%): Students give a summary presentation on an assigned article.
- 2. Research proposal or paper (70%) : Choose 1 or 2
- 1) Students write a brief research proposal based on their own interest (introduction, purpose, method and expected results) (4 pages, double spaces)
- 2) Choose your topic and find relevant three peer-reviewed, published journal articles on cognitive science of language and write a short review paper (6 pages~10 pages, double spaces). The paper should clearly summarize the main points and argument and should conclude your own stance as well as suggestions for future study.
- \* Proposaland paper should be formatted according to APA (6th ed.). 6. 教科書および参考書/Textbook and References:

Assigned articles will be distributed weekly.

### [References]

- 1. David Kemmerer (2015). Cognitive Neuroscience of Language, Psychology Press
- Bernard J. Baarsm & Nicole M. Gage (Eds.), (2010). Cognition, brain & consciousness: Introduction to cognitive neuroscience. Academic Press/Elsevier.

### 7. 授業時間外学習/Preparation and Review:

2020

## 8. その他/In addition: