

# LEARNING MODULE DESCRIPTION

## GENERAL INFORMATION

1. Module title: Experimental phonetics
  2. Module code: 09-EXPHON-22
  3. Term: summer & winter term
  4. Duration: practical classes, 30 hours
  5. ECTS: 6
- Module lecturer: Agnieszka Wagner, PhD
1. E-mail: wagner.agnieszka@gmail.com
  2. Language: English

## DETAILED INFORMATION

### 1. Module aim (aims)

The aim of the course is to consolidate and broaden theoretical knowledge in general phonetics and phonology (with a focus on the English language) and to develop practical skills in the field of analysis and description of segmental and suprasegmental features of speech. The course will provide students with hands-on experience in methods of experimental phonetic research, including audio recording, interpretation of speech signal visualizations in the frequency and amplitude domains, measurement/extraction of selected features (e.g. vowel formants, pitch, duration) and methods of qualitative and quantitative (also statistical) analysis of selected aspects of spoken utterances. Not only linguistic, but also paralinguistic (e.g. emotional state of the speaker) and non-linguistic (e.g. speaking rate) features of speech will be taken into account. Additionally, the course will offer training in writing up experimental results for publication.

2. Pre-requisites in terms of knowledge, skills and social competences (where relevant) : proficiency in English (at least B1 level)

## READING LIST

- Clark, J. and Yallop, C. (1995) An introduction to phonetics and phonology. 2nd edition. Oxford: Blackwell
- Ladefoged, P. (1962) Elements of acoustic phonetics. Oliver and Boyd, Edinburgh and London
- Ladefoged, P. (2001) Vowels and Consonants. An introduction to the sounds of languages. Blackwell Publishers
- Laver, J. (1994). Principles of phonetics. Cambridge: Cambridge University Press.

Selected chapters from:

- Hardcastle, W. J., Laver, J., & Gibbon, F. E. (Eds.). (2010). The handbook of phonetic sciences (Vol. 1). John Wiley & Sons.
- Goldsmith, J. A., Riggle, J., & Alan, C. L. (Eds.). (2011). The handbook of phonological theory (Vol. 75). John Wiley & Sons.
- van der Hulst, H. (Ed.). (1999). Word prosodic systems in the languages of Europe (Vol. 20, No. 4). Walter de Gruyter.
- Redford, M. A. (Ed.). (2015). The handbook of speech production. John Wiley & Sons.
- Pisoni, D., & Remez, R. (Eds.). (2008). The handbook of speech perception. John Wiley & Sons.

## SYLLABUS:

- Week 1: Phonetics as a scientific study of speech: objectives, methods and applications.
- Week 2: Description of articulatory and acoustic features of vowels and consonants.
- Week 3: Initiation of speech, airstream mechanisms and phonation types.
- Week 4: Speech production and perception.
- Week 5: Introduction to speech analysis tools.
- Week 6: Visual representation of speech sounds: spectrograms and oscillograms.
- Week 7: Segmentation (phonetic alignment) of continuous speech using audio and visual (spectrographic) representation.
- Week 8: Acoustic measurements of distinctive features of speech segments.
- Week 9: Measurements of suprasegmental features.
- Week 10: Designing and planning of a phonetic experiment. Formulating experimental hypotheses.
- Week 11: Creation/selection of recording scenarios and realization of recordings.
- Week 12: Annotation of speech recordings for use in the phonetic experiment.
- Week 13: Extraction of speech parameters and creation of a database.
- Week 14: Testing experimental hypotheses: selection and application of basic and more advanced statistical methods.
- Week 15: Presentation of the experimental results – preparation of the report.