

# **Filologia angielska**

## **Przetwarzanie języka naturalnego**

### **Seminaria magisterskie 2021/22**

#### **Liczebność grup: 8-12**

**dr Joanna Redzimska**

### **MA SEMINAR – THE LINGUISTIC PERSPECTIVE ON NLP**

The scope of this course will cover, but will not be limited to, aspects connected with natural language processing from a linguistic perspective. Students will be encouraged to carry out their own research and present the results of it in the form of a thesis. Thus, some part of the course is devoted to formal aspects of writing a thesis, where to look for reading resources or generally how to plan the research.

The major areas the seminar will address are:

1. tools used in NLP
2. language data used in NLP
3. corpus linguistics
4. computational linguistics
5. language-based AI solutions and software

**dr hab. Tomasz Ciszewski, prof.UG**

### **ACOUSTIC ANALYSIS OF SPEECH**

The leading theme of the seminar will be acoustic phonetics. In particular, it includes an introduction to the Source-and-Filter theory, vowel and consonant acoustics, a comparison of Polish and English allophonic systems, an intensive practice of broad and narrow transcription of speech. Students are expected to develop their skills in acoustic measurements using open-source

computer software (e.g. PRAAT, Audacity). The methodological component includes postulating and verifying hypotheses concerning phonological processes using acoustic data.

The seminar is intended for all Students interested in speech acoustics who have rudimentary knowledge of articulatory phonetics, phonology and IPA transcription system. This includes spectrographic analysis, e.g. formant analysis, pitch and intensity analysis, spectrogram segmentation principles and sound identification. The research topics will include:

- acoustic analyses of duration
- co-articulation
- allophonic variation
- accent/speaker identification
- text-to-speech tools
- acoustic analysis of Polish-accented English