Faculties of Humanities and Theology

FONM22, Phonetics: Speech Technology, 7.5 credits

Fonetik: Talteknologi, 7,5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by the programmes director by delegation from the pro-dean for first- and second-cycle studies on 2012-10-10 to be valid from 2012-10-10, spring semester 2013.

General Information

The course is offered as an elective component of the MA programme in Language and Linguistics. It is also offered as a free-standing course and can normally be included as part of a first- or second-cycle degree.

Language of instruction: English
If both the students and the lecturer agree, it may be taught in Swedish. Such an agreement would depend on both the lecturer and the students having a good knowledge of Swedish.

Main field of studies	*Depth of study relative to the degree requirements*
Language and Linguistics with specialization in Phonetics	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

On completion of the course the student shall

Knowledge and understanding

- be able to understand and account for the purpose and aims of speech technology
- be able to describe different models and theories of speech production, acoustics, perception, phonology and prosody on which many speech technology solutions are based
- be able to account for tools that can be used for different aims of speech technology

- be able to account for different systems of speech technology, in particular speech synthesis and speech recognition

Competence and skills

- be able to carry out practical assignments in speech signal processing, e g normalisation, spectral analysis and editing of speech signals
- be able to apply some of the tools used for different aims of speech technology
- be able to solve minor problems of speech technology independently
- be able to understand literature on speech technology and relate it to current research and examination assignments

Judgement and approach

- be able to relate solutions in speech technology to societal demands
- be able to evaluate different methods of speech technology, for example how comprehensible different types of speech synthesis voices are.

Course content

The course deals with models for speech production and speech perception, and fundamental acoustics. Basic phonology and prosody are introduced and placed in a context of speech technology. Students are provided with the opportunity to practise speech signal processing, speech synthesis and speech recognition.

Course design

Teaching consists of classes, demonstrations and laboratory exercises.

Assessment

The assessment is based on a written exam in conjunction with the course and 3-5 compulsory laboratory assignments to be completed individually or in groups.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.

Entry requirements

To be admitted to the course students must have English B from Swedish upper secondary school or the equivalent and 90 credits including course LINC01 Linguistics: Voice and Speech (7.5 credits) and 52.5 credits in a language subject or in Linguistics (Phonetics or General Linguistics) or the equivalent.

Further information

1. The credits allocated for course content that in whole or in part is commensurate with another course can only be credited once for a degree.
2. The course is offered at the Centre for Languages and Literature, Lund University.

Subcourses in FONM22, Phonetics: Speech Technology

Applies from H12

1101 Phonetics: Speech Technology, 7,5 hp
Grading scale: Fail, Pass, Pass with distinction