## **Opasraportti**

## Phonetics (2015 - 2016)

#### **Phonetics**

Address: Phonetics, PL 1000, 90014 University of Oulu, Finland

Telephone: Study guidance +358 294 48 3375 Lecturer Pentti Körkkö, +358 294 48 3385 Academic Affairs Secretary

Kaisa Kosola

E-mail: pentti.korkko(at)oulu.fi.

Website: http://www.oulu.fi/phonetics/

#### **Admission requirements**

All students enrolled at the University of Oulu and registered as present are allowed to study Phonetics. The Basic Studies can be started after the course *694500P Introduction to Phonetics* or a similar course has been completed. It is preferable for students to start the studies in the autumn term, but they can also start them in the spring term.

#### Study guidance

Study guidance is provided by the Lecturer of Phonetics Pentti Körkkö during his office hours on Thursdays 12 pm–1 pm, and at other times by appointment. Telephone +358 29 448 3375, e-mail pentti.korkko(at)oulu.fi

#### **Phonetics**

Phonetics is a specialised field of Linguistics studying the physiology, acoustics and perception of speech, that is, how spoken messages are conveyed from the speaker to the listener in the so-called speech chain. Traditionally, the field of Phonetics is divided into the following areas of study: speech production, acoustic phonetics and auditory phonetics (speech perception); they are to some degree independent, although they are still fundamentally interdependent. Phoneticians examine speech and voice phenomena from several perspectives because speech always has vocal qualities that are specific either to the speaker or to the language being spoken, or indeed to features that are universal and present in all languages in the world. A linguistic approach to speech is truly important in Phonetics because language, as a basic element used in speech communication, strongly regulates both the production of speech and its perception. The multidisciplinary nature of the field of Phonetics is underlined by the contents of the courses we provide: within the areas of phonetic research, courses may focus on e.g. linguistics, physiology, acoustics and/or auditory perception of speech.

A knowledge of Phonetics may support: the study of foreign languages; the study of speech technique and voice control in speech communication; and the study of Logopedics, particularly of speech and language disorders, thus aiding clinical speech therapy. Other study areas where a knowledge of Phonetics is relevant are: phoniatry, audiology, media studies, communication technology (especially speech technology), speech recognition and vocology.

Speech is the most important tool that we use for communication, though we might not always appreciate the significance of our speech because speaking is usually such an obvious and natural activity. The importance of speech is often noticed only when there are temporary or long-term problems, for example, when illness or an injury affects our organs of speech, or when the sounds of a foreign language are difficult to produce intelligibly for our listeners. Phonetics is the number one discipline that studies all vocal speech phenomena: speech production (how we make sounds with our organs of speech), the vocal characteristics unique to a speaker or a language, the vocal features speakers or languages have in common, and the perception and understanding of the sound of speech.

Phonetics can be studied only as a subsidiary (minor) subject at the University of Oulu and is especially suitable for students of languages (both mother-tongue languages Finnish, Swedish and Sami, and foreign languages), and for students of speech communication. Because of the themes and focus areas in Phonetics, the subject can also be combined easily with the study of audiology, physiology, media studies and communication theory.

If you are interested in languages – in Finnish and its dialects, or in foreign languages – and you would prefer to find future employment in a research-related area, Phonetics is a very appropriate choice for a linguistic subsidiary subject. Naturally, studies in Phonetics will not prevent you from starting a career as a teacher, since the core of Phonetics is important in teaching as well. As a researcher or as a teacher with a background in Phonetics, you could specialise in, for example, the phonetic phenomena of language teaching and learning; or as a researcher who has studied Phonetics and who, therefore, is an expert in speech phenomena and methods, you could examine the phonetic characteristics of an individual language, or the universal speech phenomena of languages, or the deviant features of a person's speech. Phonetic expertise and knowledge of phonetic methods would also make it possible for you to make real discoveries based on e.g. measurements of children's babbling and speech development, or on the voice use of singers and artists, actors, speakers, TV presenters and so on. Phonetics is a multifaceted discipline where an individual researcher can easily find an interesting area of research: you could find yourself specialising in an examination of language from the perspective of Linguistics, Logopedics, Medicine or Psychology, without of course excluding an artistic perspective either.

The careers of past students with Phonetics as a subsidiary subject have varied greatly. Phonetics offers qualifications to work as e.g. a researcher, a teacher or an expert in speech and speech communication, variously working in a university or a college, collaborating on research projects, or working within a corporation or some other organisation.

#### **Learning outcomes of the Basic Studies**

The aim of the Basic Studies is that students will be able to describe, explain and analyse physical speech phenomena and how vocal speech conveys messages. Students will be able to select and use phonetic methods for studying languages, and to evaluate the role and significance of Phonetics in Linguistics. The research-oriented practical courses of the Basic Studies make it possible for students to focus on special areas they find interesting.

#### Courses

694500P	Introduction to phonetics, 3 ECTS cr
694511P	Speech Production and Perception, 6 ECTS cr
694512P	Phonetics and Phonology, 6 ECTS cr
694513P	Acoustic Phonetics, 5 ECTS cr
694514P	Experimental Acoustic Phonetics, 6 ECTS cr

# Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja - jaksot

694513P: Acoustic Phonetics, 5 op

694514P: Experimental Acoustic Phonetics, 6 op

694500P: Introduction to Phonetics, 3 op 694512P: Phonetics and Phonology, 6 op

694511P: Speech Production and Perception, 6 op

### Opintojaksojen kuvaukset

# Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

694513P: Acoustic Phonetics, 5 op

Voimassaolo: 01.08.2015 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Faculty of Humanities

Arvostelu: 1 - 5, pass, fail
Opettajat: Pentti Körkkö
Opintokohteen kielet: Finnish

#### **ECTS Credits:**

5 ECTS credits (135 hours of work)

Language of instruction:

Finnish, English

Timing:

Starting from the 2 <sup>nd</sup> spring term

#### Learning outcomes:

Upon completion of the course, students will be able to describe the physics of speech and to explain the effects of sound structure and speaker-specific factors on the acoustic properties of speech. Students will be able to describe basic processes in auditory speech perception.

#### Contents:

The basics of acoustics, acoustic theory of speech production, acoustic features of vowels and consonants, auditory phonetics

#### Mode of delivery:

Book exam

#### Learning activities and teaching methods:

Independent studying for the book exam 131 hours, examination 4 hours

#### Target group:

Students majoring and minoring in languages

#### Prerequisites and co-requisites:

Completion of the courses 694500P Introduction to Phonetics and 694501P Speech Production and Perception and 694502P Phonetics and Phonology is required.

#### Recommended or required reading:

Required reading: Johnson, Acoustic and Auditory Phonetics (2012) and Suomi, *Johdatusta puheen akustiikkaan* (1990) (or a similar text book on speech acoustics in English)

#### Assessment methods and criteria:

Written examination. Assessment criteria are based on the learning outcomes of the course. Read more about the assessment criteria on the University of Oulu webpage.

#### **Grading:**

1-5 (0 = fail)

#### Person responsible:

Lecturer in Phonetics

#### Working life cooperation:

\_

#### Other information:

#### 694514P: Experimental Acoustic Phonetics, 6 op

Voimassaolo: 01.08.2015 -Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Faculty of Humanities

Arvostelu: 1 - 5, pass, fail Opettajat: Pentti Körkkö Opintokohteen kielet: Finnish

**ECTS Credits:** 

6 ECTS credits (162 hours of work)

Language of instruction:

Finnish, English

Timina:

Starting from the 3 rd autumn term

#### Learning outcomes:

Upon completion of the course, students will be able to independently carry out a linguistic study based on acoustic measurements of speech: i.e. the students will be able to gather relevant speech material using field and /or studio recordings, do relevant acoustic analyses and measurements as well as interpret and evaluate the significance of measurement results. Students will also be able to select and utilize requisite software tools in scientific lab report writing.

#### Contents:

Speech recordings, digital processing of speech samples, (speech processing on a computer), research areas and methods of acoustic phonetics, acoustic measurement of speech and voice, research tools for acoustic analyses and measurements, planning and writing scientific lab reports

#### Mode of delivery:

Contact teaching including demonstrations and exercises, personal guidance, laboratory measuring work, writing a laboratory report

#### Learning activities and teaching methods:

Demonstration exercises 10 hours; independent studying for the book exam 60 hours; exercises in data gathering; acoustic analysis and measuring (group work) 30 hours; writing a lab report 40 hours; personal guidance 18 hours; examination 4 hours (162 hours in total)

#### Target group:

Students majoring and minoring in languages

#### Prerequisites and co-requisites:

Completion of the courses 694500P Introduction to Phonetics, 694501P Speech Production and Perception, 694502P Phonetics and Phonology and 694503P Acoustic phonetics is required.

#### Recommended or required reading:

Required reading: Selected chapters (approx. 200 pages, to be negotiated with the teacher responsible) of the following textbooks: Kent & Read, The Acoustic Analysis of Speech (2002), Kent, The Speech Sciences (1997), Hardcastle & Lave, Handbook of Phonetic Sciences (1999)

#### Assessment methods and criteria:

Written examination, completion of preliminary speech recordings and segmentation tasks and a written lab report on an experimental research task. Assessment criteria are based on the learning outcomes of the course. Read more about the assessment criteria on the University of Oulu webpage.

#### **Grading:**

1-5 (0 = fail)

#### Person responsible:

Lecturer in Phonetics

Working life cooperation:

#### Other information:

694500P: Introduction to Phonetics, 3 op

Voimassaolo: 01.08.2005 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Faculty of Humanities

Arvostelu: 1 - 5, pass, fail
Opettajat: Pentti Körkkö
Opintokohteen kielet: Finnish

ECTS Credits:

3 ECTS credits (81 hours of work)

#### Language of instruction:

Finnish **Timing:** 

1 st autumn term, periods I and II

#### Learning outcomes:

Upon completion of the course, students will be able to explain the processes of speech production. Students will know the basic phonetic terminology used in describing and classifying speech sounds and prosodic features and will also be able to explain the general and special features of the Finnish sound system.

#### Contents:

Language and speech, speech production, phonetic description and classification of speech sounds, speech prosody

#### Mode of delivery:

Contact teaching and online exercises

#### Learning activities and teaching methods:

Lectures 24 hours; independent online study 9 hours; independent study 46 hours including recommended reading and preparation for the exam; exam 2 hours

#### Target group:

Students majoring and minoring in languages

#### Recommended optional programme components:

Required exam reading for students who do not speak Finnish: Rogers, *The Sounds of Language – An Introduction to Phonetics* (2000), (Chapters 1 and 9–14). The examination dates are the same as for speakers of Finnish.

#### Recommended or required reading:

Recommended reading: Suomi, Toivanen & Ylitalo, *Fonetiikan ja suomen äänneopin perusteet* (2006), Part I or Suomi, Toivanen & Ylitalo, *Finnish Sound Structure* (2009)

#### Assessment methods and criteria:

Written examination. Assessment criteria are based on the learning outcomes of the course. Read more about the assessment criteria on the University of Oulu webpage.

#### **Grading:**

1-5 (0 = fail)

#### Person responsible:

Lecturer in Phonetics

#### Working life cooperation:

-

#### Other information:

\_

#### 694512P: Phonetics and Phonology, 6 op

Voimassaolo: 01.08.2015 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Faculty of Humanities

Arvostelu: 1 - 5, pass, fail
Opettajat: Pentti Körkkö
Opintokohteen kielet: Finnish

#### **ECTS Credits:**

#### 6 ECTS credits (162 hours of work)

#### Language of instruction:

Finnish, English

Timing:

Starting from the 1 st spring term

#### Learning outcomes:

Upon completion of the course, students will obtain a picture of the fundamental conceptual framework needed in describing the phonetic phenomena of languages, including phonology, phonotactics and morphophonology. Students will also be able to explain phonological, phonotactical and morphophonological processes.

#### Contents:

Essential terminology of phonetics and phonology, phonotactics and morphophonology, and the basics of Finnish phonology

#### Mode of delivery:

Book exam

#### Learning activities and teaching methods:

Independent studying for the book exam 158 hours, examination 4 hours

#### Target group:

Students majoring and minoring in languages

#### Prerequisites and co-requisites:

Completion of the course 694500P Introduction to phonetics is required.

#### Recommended optional programme components:

Pennington, Phonology in English Language Teaching: An International Approach (1996), (270 pages)

#### Recommended or required reading:

Required reading: Clark, Yallop & Fletcher, *An Introduction to Phonetics and Phonology*, and Suomi, Toivanen & Ylitalo, *Fonetiikan ja suomen äänneopin perusteet*, Chapter II Johdatus suomen kielen äänneoppiin

#### Assessment methods and criteria:

Written examination. Assessment criteria are based on the learning outcomes of the course. Read more about the assessment criteria on the University of Oulu webpage.

#### **Grading:**

1-5 (0 = fail)

#### Person responsible:

Lecturer in Phonetics

#### Working life cooperation:

-

#### Other information:

\_

#### 694511P: Speech Production and Perception, 6 op

Voimassaolo: 01.08.2015 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Faculty of Humanities

Arvostelu: 1 - 5, pass, fail
Opettajat: Pentti Körkkö
Opintokohteen kielet: Finnish

#### **ECTS Credits:**

6 ECTS credits (162 hours of work)

#### Language of instruction:

English

#### Timing:

Starting from the 1 st spring term

#### **Learning outcomes:**

Upon completion of the course, students will be able to describe and explain the processes and theories of speech production and perception.

#### Contents:

Physiology of speech production, speech acoustics and speech perception, theories of speech production and perception

#### Mode of delivery:

Book exam

#### Learning activities and teaching methods:

Independent studying for the book exam 158 hours, examination 4 hours

#### Target group:

Students majoring and minoring in languages

#### Prerequisites and co-requisites:

Completion of the course 694500P Introduction to Phonetics is required.

#### Recommended or required reading:

Required reading: Raphael, Borden, Harris, *Speech Science Primer* (2011) and Ashby & Maidment, *Introducing Phonetic Science* (2005)

#### Assessment methods and criteria:

Written examination. Assessment criteria are based on the learning outcomes of the course. Read more about the assessment criteria on the University of Oulu webpage.

#### **Grading:**

1-5 (0 = fail)

#### Person responsible:

Lecturer in Phonetics