Department of Phonetics

Academic year 2025 / 2026

Date: 18.06.2026

Studies

University undergraduate double major study
Phonetics

5. semester

Mandatory courses

51613	Orthophony	5	30/0/15
51614	Speech development	5	30/30/0

(from 1st to 6th semester choose a min. of 27 ECTS credits) (16774)

250755	Discourse of Journalism and Mass Media	5	15/30/0
265513	Ethics of Communication	4	15/30/0
265960	Foreign language learning	4	30/0/0
51690	Foundations of Cognitive Linguistics	5	30/15/0
35899	General Linguistics	5	30/30/0
36733	Information and communication theory	3	30/0/0
80856	Introduction to Semiology	5	30/15/0

6. semester

(in 4th and 6th semester choose a total of 17 ECTS credits) (3654)

51321	Rhetoric	6	30/30/0

(from 1st to 6th semester choose a min. of 27 ECTS credits) (16774)

265506	History of Linguistic Theories	4	30/15/0
36469	Introduction to Croatian as a Mother Tongue and Foreign Language	5	30/30/0
170262	Introduction to Psycholinguistics	5	30/15/0
250730	Language of Dramatic Texts	5	30/15/0
265504	Languages of the World	4	30/15/0
37171	Linguistics and Its Dialects	5	30/15/0
265959	Neurophonetics	4	30/15/0
51306	Phonetics and phonology	3	30/0/0
265798	Sociolinguistics	4	30/15/0

University graduate double major study
Phonetics with Emphasis on Clinical Phonetics

1. semester

Mandatory courses

117511	Audio technology	5	30/0/30
117510	Audiology and space perception	5	30/0/30

(choose 18 ECTS credits during course of study) (11012)

120083	Didactics	6	30/30/0
120082	Educational psychology	6	30/30/0
120085	Systematic pedagogy	6	30/30/0

(during 1st, 2nd, and 3rd semester take a min. of 3 ECTS credits) (10659)

117501	Acoustic phonetics - seminar	5	0/30/0
117515	Methodology of scientific work	3	15/15/0
124278	Methodology of working on speech in electronic media	5	30/0/30
124277	Methods in teaching rhetoric	5	30/0/30
215530	Rhetorical Argumentation	6	30/30/0
117514	Speech production research	5	15/30/15
117516	Statistics	5	30/0/30

(elective choice of a course) (12627)

225408	Croatian Language for the Teacher	4	15/15/0
250721	Digital learning materials	4	30/0/15
120099	Information Technology in Education	4	15/0/15
124278	Methodology of working on speech in electronic media	5	30/0/30
124277	Methods in teaching rhetoric	5	30/0/30
198896	Philosophy of Education - Studium Generale	4	30/0/0

2. semester

Mandatory courses

124281	Hearing disorders and methodology of hearing rehabilitation	5	30/0/30
160755	Methodology of the individual approach to the rehabilitation of hearing and speech	5	5/0/55
124275	Speech disorders and their rehabilitation methods	5	30/0/30

(choose 18 ECTS credits during course of study) (11012)

120083	Didactics	6	30/30/0
120082	Educational psychology	6	30/30/0
120085	Systematic pedagogy	6	30/30/0

(during 1st, 2nd, and 3rd semester take a min. of 3 ECTS credits) (10659)

124280	Computer analysis and synthesis of speech	4	30/30/0
125406	History of rhetoric	5	15/30/0
125404	Methodology of phonetic care of voice and pronunciation (an individual approach)	5	15/0/30
124279	Psychoacoustics - seminar	5	0/30/0
170378	Rhetorical genres	5	0/30/30

(elective choice of a course) (12627)

250721	Digital learning materials	4	30/0/15
280642	Educational inclusion of students with developmental disabilities	4	15/15/15
120105	Evaluation of educational interventions	4	30/0/0
125404	Methodology of phonetic care of voice and pronunciation (an individual approach)	5	15/0/30
170378	Rhetorical genres	5	0/30/30
225409	Sociology of education	4	30/30/0
120104	Speech production	4	0/15/15

3. semester

(choose 18 ECTS credits during course of study) (11012)

120083	Didactics	6	30/30/0
120082	Educational psychology	6	30/30/0
120085	Systematic pedagogy	6	30/30/0

(during 1st, 2nd, and 3rd semester take a min. of 3 ECTS credits) (10659)

117501	Acoustic phonetics - seminar	5	0/30/0
117515	Methodology of scientific work	3	15/15/0
124278	Methodology of working on speech in electronic media	5	30/0/30
124277	Methods in teaching rhetoric	5	30/0/30
215530	Rhetorical Argumentation	6	30/30/0
117514	Speech production research	5	15/30/15
117516	Statistics	5	30/0/30

(elective choice of a course) (12627)

225408	Croatian Language for the Teacher	4	15/15/0
250721	Digital learning materials	4	30/0/15
120099	Information Technology in Education	4	15/0/15
124278	Methodology of working on speech in electronic media	5	30/0/30
124277	Methods in teaching rhetoric	5	30/0/30
198896	Philosophy of Education - Studium Generale	4	30/0/0

4. semester

Mandatory courses

124609	Master's Thesis for the Graduate Study of Phonetics	15	0/0/0

(choose 18 ECTS credits during course of study) (11012)

120083	Didactics	6	30/30/0
120082	Educational psychology	6	30/30/0
120085	Systematic pedagogy	6	30/30/0

(elective choice of a course) (12627)

250721	Digital learning materials	4	30/0/15
280642	Educational inclusion of students with developmental disabilities	4	15/15/15
120105	Evaluation of educational interventions	4	30/0/0
125404	Methodology of phonetic care of voice and pronunciation (an individual approach)	5	15/0/30
170378	Rhetorical genres	5	0/30/30
225409	Sociology of education	4	30/30/0
120104	Speech production	4	0/15/15

University graduate double major study
Phonetics with Emphasis on Rhetoric

1. semester

Mandatory courses

215530	Rhetorical Argumentation	6	30/30/0

(in first and/or 3rd semester take a total of 10 ECTS credits) (15631)

124278	Methodology of working on speech in electronic media	5	30/0/30
124277	Methods in teaching rhetoric	5	30/0/30

(choose 18 ECTS credits during course of study) (11012)

120083	Didactics	6	30/30/0
120082	Educational psychology	6	30/30/0
120085	Systematic pedagogy	6	30/30/0

(during 1st, 2nd, and 3rd semester take a min. of 3 ECTS credits) (11925)

117501	Acoustic phonetics - seminar	5	0/30/0
117511	Audio technology	5	30/0/30
117510	Audiology and space perception	5	30/0/30
117515	Methodology of scientific work	3	15/15/0
117514	Speech production research	5	15/30/15
117516	Statistics	5	30/0/30

(elective choice of a course) (12626)

225408	Croatian Language for the Teacher	4	15/15/0
250721	Digital learning materials	4	30/0/15
120099	Information Technology in Education	4	15/0/15
198896	Philosophy of Education - Studium Generale	4	30/0/0

2. semester

Mandatory courses

125404	Methodology of phonetic care of voice and pronunciation (an individual approach)	5	15/0/30
170378	Rhetorical genres	5	0/30/30

(choose 18 ECTS credits during course of study) (11012)

120083	Didactics	6	30/30/0
120082	Educational psychology	6	30/30/0
120085	Systematic pedagogy	6	30/30/0

(during 1st, 2nd, and 3rd semester take a min. of 3 ECTS credits) (11925)

124280	Computer analysis and synthesis of speech	4	30/30/0
124281	Hearing disorders and methodology of hearing rehabilitation	5	30/0/30
125406	History of rhetoric	5	15/30/0
124279	Psychoacoustics - seminar	5	0/30/0
124275	Speech disorders and their rehabilitation methods	5	30/0/30

(elective choice of a course) (12626)

250721	Digital learning materials	4	30/0/15
280642	Educational inclusion of students with developmental disabilities	4	15/15/15
120105	Evaluation of educational interventions	4	30/0/0
124281	Hearing disorders and methodology of hearing rehabilitation	5	30/0/30
225409	Sociology of education	4	30/30/0
124275	Speech disorders and their rehabilitation methods	5	30/0/30
120104	Speech production	4	0/15/15

3. semester

(in first and/or 3rd semester take a total of 10 ECTS credits) (15631)

124278	Methodology of working on speech in electronic media	5	30/0/30
124277	Methods in teaching rhetoric	5	30/0/30

(choose 18 ECTS credits during course of study) (11012)

120083	Didactics	6	30/30/0
120082	Educational psychology	6	30/30/0
120085	Systematic pedagogy	6	30/30/0

(during 1st, 2nd, and 3rd semester take a min. of 3 ECTS credits) (11925)

117501	Acoustic phonetics - seminar	5	0/30/0
117511	Audio technology	5	30/0/30
117510	Audiology and space perception	5	30/0/30
117515	Methodology of scientific work	3	15/15/0
117514	Speech production research	5	15/30/15
117516	Statistics	5	30/0/30

(elective choice of a course) (12626)

225408	Croatian Language for the Teacher	4	15/15/0
250721	Digital learning materials	4	30/0/15
120099	Information Technology in Education	4	15/0/15
198896	Philosophy of Education - Studium Generale	4	30/0/0

4. semester

Mandatory courses

124609	Master's Thesis for the Graduate Study of Phonetics	15	0/0/0

(choose 18 ECTS credits during course of study) (11012)

120083	Didactics	6	30/30/0
120082	Educational psychology	6	30/30/0
120085	Systematic pedagogy	6	30/30/0

(elective choice of a course) (12626)

250721	Digital learning materials	4	30/0/15
280642	Educational inclusion of students with developmental disabilities	4	15/15/15
120105	Evaluation of educational interventions	4	30/0/0
124281	Hearing disorders and methodology of hearing rehabilitation	5	30/0/30
225409	Sociology of education	4	30/30/0
124275	Speech disorders and their rehabilitation methods	5	30/0/30
120104	Speech production	4	0/15/15

University graduate double major study
Phonetics with Emphasis on Theoretical and Experimental Phonetics

1. semester

Mandatory courses

117501	Acoustic phonetics - seminar	5	0/30/0
117515	Methodology of scientific work	3	15/15/0
117516	Statistics	5	30/0/30

(during 1st, 2nd, and 3rd semester take a min. of 18 ECTS credits) (10761)

117511	Audio technology	5	30/0/30
117510	Audiology and space perception	5	30/0/30
124278	Methodology of working on speech in electronic media	5	30/0/30
124277	Methods in teaching rhetoric	5	30/0/30
215530	Rhetorical Argumentation	6	30/30/0

2. semester

Mandatory courses

124280	Computer analysis and synthesis of speech	4	30/30/0
124279	Psychoacoustics - seminar	5	0/30/0

(during 1st, 2nd, and 3rd semester take a min. of 18 ECTS credits) (10761)

124281	Hearing disorders and methodology of hearing rehabilitation	5	30/0/30
125406	History of rhetoric	5	15/30/0
125404	Methodology of phonetic care of voice and pronunciation (an individual approach)	5	15/0/30
170378	Rhetorical genres	5	0/30/30
124275	Speech disorders and their rehabilitation methods	5	30/0/30

3. semester

Mandatory courses

117514	Speech production research	5	15/30/15

(during 1st, 2nd, and 3rd semester take a min. of 18 ECTS credits) (10761)

117511	Audio technology	5	30/0/30
117510	Audiology and space perception	5	30/0/30
124278	Methodology of working on speech in electronic media	5	30/0/30
124277	Methods in teaching rhetoric	5	30/0/30
215530	Rhetorical Argumentation	6	30/30/0

4. semester

Mandatory courses

124609	Master's Thesis for the Graduate Study of Phonetics	15	0/0/0

Reformed programmes

University undergraduate double major study
Phonetics

1. semester

Mandatory courses

265763	Acoustic phonetics	4	60/0/0
265951	Articulatory phonetics	5	30/15/0
39622	Physical Education 1	0	0/0/30
265761	Speech exercises 1	2	0/0/30

(semesters 1-6 select 8 ECTS) (20919)

265960	Foreign language learning	4	30/0/0
36733	Information and communication theory	3	30/0/0

(select 2 ECTS) (20918)

266032	English for Phonetics 1	2	0/30/0

(semesters 1-6 select 15 ECTS) (20806)

Courses from this department

265960	Foreign language learning	4	30/0/0
36733	Information and communication theory	3	30/0/0

Courses from other departments

Number of courses: 173

2. semester

Mandatory courses

265952	Phonetic transcription	5	15/30/15
39624	Physical Education 2	0	0/0/30
265953	Speech and audio technology	5	15/15/30

(semesters 1-6 select 8 ECTS) (20919)

265959	Neurophonetics	4	30/15/0
51306	Phonetics and phonology	3	30/0/0

(select 2 ECTS) (21068)

266033	English for Phonetics 2	2	0/30/0

(semesters 1-6 select 15 ECTS) (20806)

Courses from this department

265959	Neurophonetics	4	30/15/0
51306	Phonetics and phonology	3	30/0/0
225465	Public speaking skills	4	15/15/0

Courses from other departments

Number of courses: 186

3. semester

Mandatory courses

266029	Hearing and listening	5	45/0/15
265955	Orthoepy of Croatian language	4	15/15/15
50927	Physical Education 3	0	0/0/30
265956	Speech and language	3	30/15/0

(semesters 1-6 select 8 ECTS) (20919)

265960	Foreign language learning	4	30/0/0
36733	Information and communication theory	3	30/0/0

(semesters 1-6 select 15 ECTS) (20806)

Courses from this department

265960	Foreign language learning	4	30/0/0
36733	Information and communication theory	3	30/0/0

Courses from other departments

Number of courses: 173

4. semester

Mandatory courses

50932	Physical Education 4	0	0/0/30
265762	Speech perception	5	30/15/0
266030	Speech prosody	5	45/0/15

(semesters 1-6 select 8 ECTS) (20919)

265959	Neurophonetics	4	30/15/0
51306	Phonetics and phonology	3	30/0/0

(semesters 1-6 select 15 ECTS) (20806)

Courses from this department

265959	Neurophonetics	4	30/15/0
51306	Phonetics and phonology	3	30/0/0
225465	Public speaking skills	4	15/15/0

Courses from other departments

Number of courses: 186

Courses

Acoustic phonetics

Name	Acoustic phonetics
Organizational unit	Department of Phonetics
ECTS credits	4
ID	265763
Semesters	Winter
Teachers	Marko Liker, PhD, Full Professor (primary, L) Ana Vidović Zorić, PhD, Associate Professor (L) Nina Nodilo, M.Sc., Assistant (L)
Hours	Lectures 60
Prerequisites	None
Goal	The aim of this course is to define and explain the basic parameters of the acoustic analysis of speech and different types of visualizations of the speech signal. Acoustic parameters for the analysis of Croatian sounds are demonstrated via spectrograms and spectral slices.
Teaching methods	Lectures
Assessment methods	Optional continuous evaluation, written and oral exam

Learning outcomes

1. 1. Explain physical properties of sound and its propagation.
2. 2. Explain the parameters of speech sound quantification.
3. 3. Explain visual representations of sound and use those visualisations for the acoustic description of speech sounds.
4. 4. Identify Croatian speech sounds in the acoustic signal.
5. 5. Explain acoustic characteristic of Croatian speech sounds.

Content

1. Introduction, objectives, learning outcomes. The definition of acoustic phonetics.
2. The development of acoustic phonetics, the nature of sound, sound source, medium, receptor, hearing.
3. Physical dimensions of sound, frequency, wave length, speed of sound, sound pressure, intensity, power, decibel.
4. Analysis and visualisation of sound: oscillogram, spectrogram, spectral slice. Acoustic filters, pure tone, complex sound, harmonic sound, noise.
5. Fundamental frequency, vocal tract resonance, speech production and acoustics (source-filter theory).
6. Introduction to speech sound. Continuous assessment 1.
7. Speech sound: vowels
8. Speech sound: stops
9. Speech sound: fricatives
10. Speech sound: affricates
11. Speech sound: nasals
12. Speech sound: approximants and trills
13. Speech sound: temporal organisation of speech
14. Speech sound: temporal organisation of speech 2. Continuous assessment 2.
15. Conclusion.

Acoustic phonetics - seminar

Name	Acoustic phonetics - seminar
Organizational unit	Department of Phonetics
ECTS credits	5
ID	117501
Semesters	Winter
Teachers	Veno Volenec, PhD, Associate Professor (primary, S)
Hours	Seminar 30
Prerequisites	None
Goal	The aim of this course is to enable students to perform the acoustic analysis of Croatian sounds, explain their choice of measurement parameters and discuss the results of their analysis in light of normative data and practical applications.
Teaching methods	Seminars
Assessment methods	Seminar assignments and oral exam

Learning outcomes

1. Plan and produce various acoustic analyses of speech sounds depending on the application of the results.
2. Present the results and the conclusions of the acoustic analysis.
3. Critically assess the parameters for the acoustic analysis of speech sounds.
4. Provide arguments for the application of acoustic analysis in the phonetic sciences.

Content

1. Course introduction: aim, responsibilities, and evaluation. Praat: installation and basic functions.
2. Sound types in speech and the parameters for their analysis.
3. Vowels: acoustic properties and parameters for their analysis.
4. Acoustic analysis of vowels.
5. Plosives: acoustic properties and parameters for their analysis.
6. Acoustic analysis of plosives.
7. Fricatives: acoustic properties and parameters for their analysis.
8. Acoustic analysis of fricatives.
9. Affricates: acoustic properties and parameters for their analysis.
10. Acoustic analysis of fricatives.
11. Sonorant consonants: acoustic properties and parameters for their analysis.
12. Acoustic analysis of sonorant consonants.
13. Acoustic analysis of sonorant consonants.
14. Student assignments evaluation; preparation for individual oral exams.
15. Course conclusion and application of course outcomes.

Articulatory phonetics

Name	Articulatory phonetics
Organizational unit	Department of Phonetics
ECTS credits	5
ID	265951
Semesters	Winter
Teachers	Marko Liker, PhD, Full Professor (primary, L) Ines Carović, PhD, Associate Professor (S)
Hours	Lectures 30 Seminar 15
Prerequisites	None
Goal	The aim of this course is to define and explain the basic notions of articulatory phonetics, to provide a comprehensive articulatory description of Croatian sounds, and to compare Croatian speech sounds to sounds from other languages when necessary. The practical part of the course includes demonstrations of articulatory processes via instrumental kinematic techniques (e.g. EPG, UTI).
Teaching methods	Lectures, seminars
Assessment methods	Optional continuous evaluation, written and oral exam

Learning outcomes

1. 1. Identify basic elements of the central nervous system and explain their role in speech control.
2. 2. Explain the basic anatomy and physiology of respiration and initiation processes in speech production.
3. 3. Explain the basic anatomy and physiology of phonation and phonatory processes in speech production.
4. 4. Explain the anatomy and physiology of articulation and articulatory processes in speech production.
5. 5. Explain the articulation of Croatian speech sounds.
6. 6. Analyse the structure of the syllable.

Content

1. L: Introduction.
   S: Introduction to seminar obligations and objectives.
2. L: Definition of speech
   S: Introduction to the techniques for the analysis of speech kinematics
3. L: Central nervous system and speech control
   S: Kinematic techniques: imaging techniques
4. L: Central nervous system and speech control
   S: Kinematic techniques: palatographic techniques
5. L: Airstream initiation (respiratory system)
   S: Practical demonstration of kinematic recording of speech production.
6. L: Phonation (basic anatomy)
   S: Continual assessment 1
7. L: Phonation (basic physiology)
   S: Kinematic recording of speech production.
8. L: Articulation (basic anatomy)
   S: Kinematic recording of speech production.
9. L: Articulation (basic anatomy)
   S: Continual assessment 2
10. L: Articulation (basic physiology)
    S: Kinematic data visualization.
11. L: Articulation (basic physiology)
    S: Kinematic data visualization – individual assignments

12. L: Articulation (Croatian consonants)
    S: Kinematic data visualization – individual assignments
13. L: Articulation (Croatian vowels)
    S: Kinematic data visualization – individual assignments
14. L: Syllable
    S: Kinematic data visualization – individual assignments
15. L: Course conclusion
    S: Continual assessment 3

Audio technology

Name	Audio technology
Organizational unit	Department of Phonetics
ECTS credits	5
ID	117511
Semesters	Winter
Teachers	Diana Tomić, PhD, Associate Professor (primary, L, E) Davor Šušković, PhD (L, E) Ivana Šušković (E) Marijana Tuta Dujmović (E)
Hours	Lectures 30 Exercies 30
Prerequisites	None
Goal	The aim of the course is to introduce students to instrumental devices for speech analysis, psychoacoustic phenomena in the context of hearing aids and hearing rehabilitation, and to enable them to recommend hearing aids, advise and guide rehabilitation processes for different hearing aid users.
Teaching methods	Lectures, exercises, mixed e-learning, project assignments
Assessment methods	Continuous assessment which includes attendance, preparation for practical exercises, homework, research paper presentation, written and oral exams

Learning outcomes

1. Explain technical characteristics of different types of filters and their application in different devices.
2. Describe the historical development of hearing aids.
3. Categorize hearing aids.
4. Explain the difference between analog and digital technology in hearing devices and explain the parts and functions of cochlear and other implants.
5. Select hearing aid and determine optimal hearing area.
6. Apply results of scientific studies in hearing rehabilitation.

Content

1. Introduction
2. Revision – acoustics; speech perception. Basic concepts - psychoacoustics, electroacoustics.
3. Signals; introduction to electronics and electroacoustics; electroacoustic devices – filtar banks
4. Use of electroacoustic devices. Practical excercises.
5. Historical development of hearing aids; contemporary hearing aids; verification process
6. Study visit to the hearing aids provider – selection and fitting
7. Selection of hearing aids, diagnostic procedures – interview with a phonetician and study visit to SUVAG Polyclinic
8. Users experience – guest – hearing aid and/or cochlear implant users
9. Cochlear implant – definition, sound simulation, technological development, Croatian CI story, implantation criteria, diagnostic procedures, pre and post-operative rehabilitation, etc.; other types of implants: ABI, AMI, BAHA, etc.
10. Study visit – Cochlear implant and new technologies Center (fitting)
11. Coding strategies and future possibilities
12. Student presentations and discussion about contemporary scientific findings and their application to hearing rehabilitation
13. Projects – presentations of completed projects for students to use in rehabilitation
14. Projects – presentations of new projects
15. Evaluation; continuous assessment

Audiology and space perception

Name	Audiology and space perception	
Organizational unit	Department of Phonetics	
ECTS credits	5	
ID	117510	
Semesters	Winter	
Teachers	Arnalda Dobrić, PhD, Assistant Professor (primary, L, E) Nađa Runjić, PhD (L, E)	
Hours	Lectures Exercies	30 30
Prerequisites	None	
Goal	The aims of the course are to show the wholeness of communication, give basic knowledge on space perception system as the eldest of sensory systems (and therefore others sensory systems originated from it), show the role of the audiology in the tests of hearing functions and enable students to understand the results of different diagnostic procedures.	
Teaching methods	Lectures and exercises	
Assessment methods	Oral exam	

Learning outcomes

1. Illustrate and interpret the wholeness of communication
2. Explain the development of the space sense through evolution and correlate it with the development of other senses
3. Explain the correlation of audiology and hearing tests
4. Analyze different diagnostic procedures in hearing tests
5. Assess rehabilitation possibilities in light of the test results
6. Recommend further steps in medical procedures

Content

1. Lecture – introductory lecture: space perception in hearing and speech; audiology; initial knowledge assessment
   Exercise – acoumetry
2. Lecture –grammar of space – space sensory system; acoumetry
   Exercise – examples of space perception in literature; acoumetry
3. Lecture – sense of hearing in the system of space perception; pure tone audiometry
   Exercise – pure tone audiometry
4. Lecture – verbotonal audiometry
   Exercise – acoumetry and pure tone audiometry
5. Lecture – senses of sight, hearing, balance, touch and proprioception; speech audiometry (words); revision: sense of hearing; acoumetry, pure tone audiometry, verbotonal audiometry
   Exercise – acoumetry and pure tone audiometry
6. Lecture – speech audiometry (sentences); objective audiometry; revision: space perception
   Exercise – pure tone and verbotonal audiometry
7. Lecture – vestibular sense; electronystagmography
   Exercise – non-instrumental and instrumental testing of vestibular sense; electronystagmography; stabilometry
8. Lecture – otoacoustic emissions; evoked potentials
   Exercise – speech audiometry; auditory evoked potentials

9. Lecture – electroencephalography; cortical cartography
   Exercise – audiometry; encephalography
10. Lecture – cortical cartography; revision: speech audiometry, objective audiometry
    Exercise – audiometry, cortical cartography
11. Lecture – basic characteristics of hearing; optimal hearing range; transfer
    Exercise – audiometry; visuals evoked potentials
12. Lecture – cochlear implant; transfer
    Exercise – diagnostics of optimal hearing range; diagnostics of space perception
13. Lecture – neurological diagnostics; neuroimaging methods; revision: basic characteristics of hearing; optimal hearing range; cochlear implant
    Exercise – audiometry; diagnostics of space perception
14. Lecture – brain plasticity; neuroimaging methods; revision: neurophysiological diagnostics
    Exercise – neuroimaging methods; diagnostics of space perception
15. Final lecture – space perception and audiology – new approaches
    Final exercise – acoumetry, subjective and objective audiometry; diagnostics of space perception

Computer analysis and synthesis of speech

Name	Computer analysis and synthesis of speech	
Organizational unit	Department of Phonetics	
ECTS credits	4	
ID	124280	
Semesters	Summer	
Teachers	Nikolaj Lazić, PhD, Full Professor (primary, L, S)	
Hours	Lectures Seminar	30 30
Prerequisites	None	
Goal	The aim of the course is to provide an overview of speech analysis and synthesis throughout history and explain the techniques required for speech synthesis and speech recognition. Modern approaches to the field of speech synthesis and speech recognition are explained in detail and different approaches to solving the problems of speech synthesis and recognition are presented.	
Teaching methods	Lectures and seminars	
Assessment methods	Presentation, oral exam	

Learning outcomes

1. Compare and practically derive different approaches to speech synthesis and automatic speech recognition
2. Manage the transmission, recording and reproduction of speech in various media
3. Use neural networks in speech analysis
4. Use formant synthesizers
5. Know how to choose the type of synthesis
6. Know how to choose the method of sound analysis

Content

1. Introductory lecture.
2. An overview of the field of speech analysis and synthesis.
3. Speech analysis tools
4. Speech analysis tools
5. Neural networks
6. Neural networks
7. The use of neural networks in speech recognition
8. The use of neural networks in speech recognition
9. Practical application of neural networks
10. Practical application of neural networks
11. Formant synthesis
12. Formant synthesis
13. Sound analysis and data preparation for formant synthesis
14. Sound analysis and data preparation for formant synthesis
15. Presentation of results

Foreign language learning

Name	Foreign language learning
Organizational unit	Department of Phonetics
ECTS credits	4
ID	265960
Semesters	Winter
Teachers	Ines Carović, PhD, Associate Professor (primary, L)
Hours	Lectures 30
Prerequisites	None
Goal	The aim of the course is to inform students about modern methods of teaching foreign languages (L2), their development and the influences of linguistics and other related sciences on the methodology of teaching L2. An overview of theories and principles of learning and factors influencing learning (motivation, receiving information, memory, use of stored information) is given, and these principles are considered in the case of learning a L2. The principles of teaching and different models of L2 teaching theory are considered. Finally, an overview of the development of modern methods of L2 languages is given, which is related to the development of linguistics and its impact on teaching and learning.
Teaching methods	Direct instructions: teaching through lectures, class discussion
Assessment methods	Class attendance, preliminary exam (2 parts), written exam

Learning outcomes

1. 1. Explain the types of multilingualism and the criteria for determining each type.
2. 2. Describe the cognitive organization and speech production of multilingual speakers.
3. 3. List the cognitive and social factors in learning of speech in L2.
4. 4. Explain theoretical approaches of multilingualism and learning of speech in L2.
5. 5. Connect speech development and multilingualism.
6. 6. Explain the perception of speech in L2.

Content

1. Learning: classical conditioning, operant conditioning, social learning theories, cognitive learning theories
2. Memory 1: information retention time, (sensory, short-term, long-term), types of long-term memory, declarative and procedural memory (episodic and semantic)
3. Memory 2: information processing and memory, brain lateralization and memory, forgetting, memory disorders, memory and age, memory and context
4. Learning a L2: theories and models
5. Methods of L2 learning until the end of the 19th century
6. Reform of L2 learning in the 19th century: direct methods
7. The influence of structuralism and behaviorism on L2 teaching
8. Theoretical views on Chomsky's language and its influence on L2 teaching
9. Influence of sociolinguistics, contrastive analysis and applied linguistics on L2 teaching
10. Audio-visual methods
11. Illustration of learning a foreign language AVGS (audio-visual global-structural) method
12. Illustration of foreign language learnig AVGS (audio-visual global-structural) method
13. Principles of AVGS methodology and their development
14. Modern methods of teaching L2
15. Bilingualism

Hearing and listening

Name	Hearing and listening
Organizational unit	Department of Phonetics
ECTS credits	5
ID	266029
Semesters	Winter
Teachers	Arnalda Dobrić, PhD, Assistant Professor (primary, L, SE) Elenmari Pletikos Olof, PhD, Associate Professor (L, SE) Ivana Aras, PhD (L)
Hours	Lectures 45 Speech exercises 15
Prerequisites	None
Goal	The aim of the course is to enable students to understand anatomical and physiological mechanisms of hearing and speech as well as to give them basic information on hearing and speech problems, and possibilities of their testing and treatment.
Teaching methods	Lectures, exercises, combined e-learning, homework, on-site exercises
Assessment methods	Oral and written tests and exams

Learning outcomes

1. Explain basic anatomy of the outer, middle and inner ear.
2. Explain basicaring anatomy and physiology of the hearing mechanisms and processing.
3. Identify objective and subjective audiological diagnostic procedures.

Content

1. L: Introductory lecture, Hearing organ (periphery, hearing path); outer ear – anatomy, physiology, pathology; Middle ear – eardrum, middle ear – anatomy, physiology
   E: Listening to the filtered recordings of the speech and non-speech sounds (ex. of hearing and listening in people with hearing disorders)
2. L: Middle ear – pathology; inner ear– anatomy, physiology, pathology; hearing path – anatomy
   E: Listening to the filtered recordings of the speech and non-speech sounds (ex. of hearing and listening in people with hearing disorders)
3. L: Hearing path - physiology, pathology; central hearing mechanism – anatomy, physiology, pathology
   E: Listening to the filtered recordings of the speech and non-speech sounds (ex. of hearing and listening in people with hearing disorders)
4. L: Develompent of listening form birth to 6 years of age; hearing development
   E: examples of the activities for listening development; listening in different age groups; atypical listening
5. L: Pure tone height, complex and non-harmonic tone height; coding theories of tone height by space and time; half-tone, octave, types of scales
   E: Auditive demonstrations: tone dependance on intensity and duration; tone masking; differencial treshholds
6. L: Loudness and loudness level. Decibe, phon and sone scale
   E: Auditive demonstrations of decibel, phon and sone correlation
7. L: Sound colour; simultaneous and non simultaneous sound masking
   E: Sound masking using noise
8. L: 1st test; Diagnostics 1 (acoumetry)
   E: Diagnostics 1 in practice (acoumetry)
9. L: Diagnostics 2 (audiometry TA, VTA, SA)
   E: TA, VTA, SA

10. L: Diagnostics 3 (SA, STAR; tympanometry, objetive methods), Auditory memory, attention and processing
    E: SA, auditory memory, attention and processing - tests
11. L: Auditory memory, attention and processing; Hearing and listening in special disorders, conditions and syndromes (sy Down, Williams, Treacher Collins, Asperger etc.)
    E: paradigm recognition (recordings)
12. L: Hearing and listening in special disorders, conditions and syndromes (ADHD, stroke, autistic spectrum, cerebral paralysis combined diabilities etc.)
    E: paradigm recognition (recordings)
13. L: Basis of speech and hearing rehabilitation (BSHR) 1– methods and hearing aids; rehabilitation using the Verbotonal method; BSHR 2 Group rehabilitation – education; music and rhytmic stimulations
    E: examples of exercises and activities for differen age groups and types of impairments
14. L: BSHR 3 Individual rehabilitaiton; rehabilitation of children of different age; story telling; hearing and listening rehabilitation in senior citzens
    E: designing different activities depending on the age and impairment of the client
15. L and E: 2nd test; Final presentation, students' evalutation

Hearing disorders and methodology of hearing rehabilitation

Name	Hearing disorders and methodology of hearing rehabilitation
Organizational unit	Department of Phonetics
ECTS credits	5
ID	124281
Semesters	Summer
Teachers	Arnalda Dobrić, PhD, Assistant Professor (primary, L, E) Marijana Tuta Dujmović (L, E) Sanja Vlahović, PhD, Assistant Professor (L, E) Maja Lakuš Ivanček, Lecturer (L) Robert Trotić, PhD, Full Professor (L, E)
Hours	Lectures 30 Exercies 30
Prerequisites	None
Goal	The aim of the course is to master relevant diagnostic procedures, get insight into the possibilities of rehabilitation and the ability of problems solving.
Teaching methods	lectures, exercises, on-site exercises; combined e-learning
Assessment methods	fulfillment of course requirements, written and oral exam

Learning outcomes

1. Correlate different types of diseases and medical procedures that precede rehabilitation
2. Perform functional hearing and listening diagnostics
3. Analyze the obtained results and recommend a program of hearing and speech rehabilitation
4. Prepare and implement the program of hearing and speech rehabilitation depending on age, disorder and hearing aid of the client
5. Apply the verbotonal method in hearing and speech rehabilitation
6. Rank different types of voice and vocal tract problems as well as recommend and implement further rehabilitation procedures
7. Plan and organize independent work in hearing and speech rehabilitation with individuals or a group of clients
8. Plan and organize hearing and speech rehabilitation for clients with multiple disorders

Content

1. Dealing with deafness through history; revision of hearing rehabilitation methods; the verbotonal system
2. AVGS/SGAV as a part of the verbotonal system; the verbotonal method
3. Anatomy and physiology of the peripheral auditory and vestibular system; anatomy and physiology of the central auditory and vestibular system
4. Illnesses that affect hearing and listening; audiological and vestibular tests in clinical practice
5. The correlation of diagnostics and rehabilitation; functional hearing diagnostics
6. Early hearing disorder diagnostics; possibilities and obstacles; introduction to ENT; Clinical center Setre milosrdnice
7. Introduction to ENT; Clinical center Sestre milosrdnice; surgery/diagnostics
8. Surgery/diagnostics
9. Cochlear implant (characteristics and principles of function); hearing development in children with cochlear implants
10. Application of the verbotonal method in hearing impaired people; functional diagnostics of hearing (exercises)
11. Functional diagnostics of hearing (exercises); hearing aid selection and adjustment (exercises)
12. Hearing aid selection and adjustment (exercises); rehabilitation of users of cochlear implants (exercises)
13. Rehabilitation of clients with cochlear implants (exercises)

14. Early intervention and hearing development in children with hearing impairment; special procedures in the verbotonal rehabilitation (musical an rhythmic stimulations)
15. Application of the verbotonal method in education; High school Slava Raškaj (exercises)

History of rhetoric

Name	History of rhetoric
Organizational unit	Department of Phonetics
ECTS credits	5
ID	125406
Semesters	Summer
Teachers	Gabrijela Kišiček, PhD, Associate Professor (primary, L, S)
Hours	Lectures 15 Seminar 30
Prerequisites	None
Goal	The main goal of this course is to gain knowledge on the development of rhetoric throughout history, to understand its impact on civilization and social growth. The goal is to introduce the most important rhetorical theorists and orators to the students, to understand rhetorical principles in different periods, and to learn basic terms in rhetorical theory (speech structure, arguments, style, etc.) and their development and changes through different times.
Teaching methods	Lectures – theoretical foundations of the development of rhetoric throughout the history Seminars – rhetorical analysis of different genres speeches from different periods delivered by different famous orators
Assessment methods	Written exam – 50% Presentation of specific rhetorical features and their development throughout history – 30% Presentation and discussion on a specific topic of the history of rhetoric – 10% Analysis and evaluation of speeches – 10%

Learning outcomes

1. Analyze the rhetorical characteristics of deliberative genre (based on historical and contemporary examples)
2. Analyze the rhetorical characteristics of judicial genre (based on historical and contemporary examples)
3. Analyze the rhetorical characteristics of epideictic genre (based on historical and contemporary examples)
4. Detect and identify the historical root of a certain rhetorical principle (speech structure, rhetorical canons, fallacies, rhetorical genres, etc.)
5. Recognize the style of the famous ancient orators (Isocrates, Demosthenes, Cato Elder, Cicero, Seneca…)
6. Create, plan and carry out exercises for the improvement of rhetorical skills (based on the example of historical schools, e.g. Progymnasmata)
7. Analyze, compare and evaluate speech structure and argumentation (based on the examples of historical and contemporary speeches)

Content

1. a) Beginning of the development of rhetoric in Syracuse and the foundations of democracy in ancient Greece; rhetoric and society were developing simultaneously and students are introduced to the first important orators (Pericles) and first rhetorical theorists (Corax and Tisias), and their rhetorical principles
   b) Students are introduced to the philosophy of Socrates, his view of rhetoric and the invention of dialectics
   c) Analysis of Socrates speech

2. a) Sophistical approach to rhetoric; basic principles of sophistical theory: Dissoi logoi, Kairos, arete, endoxa; introduction to most important sophists (Progagora, Gorgias, Hypia, Prodic, Lisias)
   b) Conflict of Plato and Socrates with sophists
   c) Analysis of selected parts of Plato`s dialogues (Gorgias, Protagoras, Phaedrus)
3. a) Plato`s view on rhetoric
   b) Isocrates and his school of rhetoric; introduction to the basic principles of Isocrates` school; rhetorical characteristics of oratory of that time; Demosthenes as an orator
   c) Speech analysis – Demosthenes "Against Philip", Isocrates "Against Sophists" and "Antidosis"
4. a) Aristotle – life and work; Aristotle`s rhetorical principles, rhetorical genres; speech structure, modes of persuasion, style….
   b) Differences between Plato, Isocrates, and Aristole in the context of rhetoric
   c) Analysis of selected parts of Aristotle`s Rhetoric
5. a) Rhetoric in the Hellenistic age (between Aristotle and Cicero); Theophrastus and Peripatetic school
   b) Rhetorica Ad Herennium – historical importance of manual, five rhetorical canons
   c) Analysis of selected parts from Rhetorica Ad Herennium
6. a) Roman society and orators before Cicero (Gaius and Tiberius Gracchus, Cato Elder)
   b) Cicero – orator and rhetorician; rhetorical characteristics of his speeches and his rhetorical theory
   c) Analysis of Cicero`s most famous speeches (Against Catilina, For Marcelius, For Milo, etc.)
7. a) Rhetoric in Roman Empire; rhetorical characteristics of declamations and the work of Seneca
   b) Quintilian – Institutio Oratoriae, the most important principles of Quintilian's rhetoric
   c) Analysis of selected parts from Institutio Oratoriae and analysis of rhetorical exercises from Greek schrools on rhetoric from that time – Progymnasmata
8. a) Rhetoric and Christianity; the rhetoric of early Christians and panegyrics
   b) Saint Augustin – rhetorical principles and preaching – De Doctrina Christiana
   c) Analysis of selected parts of his book (De Doctrina Christiana) and rhetorical analysis of contemporary preachers
9. a) Rhetoric in the early Middle Ages; rhetoric at first universities; Boetius and his view on argumentation, legal topoi
   b) Scholasticism and the place for rhetoric
   c) Two streams in rhetoric – conflict between ethos and pathos
10. a) Rhetoric in the 16th century – Erasmus from Rotterdam
    b) Petrus Ramus and the decline of rhetoric
    c) Teaching rhetoric in the 16th century – focus on elocutio (style and figures of speech); analysis of figurativeness of speech
11. a) Rhetoric in the 17th and 18th centuries; development of science and the new logic; the conflict between pathos and logos; Descartes and Pascal in France, Locke in Great Britain
    b) Port-Royal Logic – The Art of Thinking
    c) Analysis of speeches – one based on pathos (epideictic oratory), one based on logos (judicial oratory)
12. a) Rhetoric of the 20th century; revitalization of rhetoric; different approaches: linguistic (Wittgenstein), speech-act theory (Searl), argumentation (Perelman, Toulmin), rhetoric as identification (K. Burke)
    b) Jurgen Habermas and his communicative competence
    c) Analysis of rhetorical characteristics of speeches from the 20th century (with focus on war rhetoric)
13. a) Chaim Perelman and his New Rhetoric; concept of an audience, the importance of epideictic genre, figures of speech as arguments
    b) The importance of Toulmin`s argumentation theory on rhetoric
    c) Analysis of the selected parts of the New Rhetoric
14. a) Contemporary approaches to rhetoric – informal logic, pragma dialectics, visual rhetoric
    b) Multimodal approach to rhetoric
    c) Rhetorical analysis of contemporary public discourse (political campaigns, advertising…)
15. a) Student presentations
    b) Student presentations
    c) Student presentations

Information and communication theory

Name	Information and communication theory
Organizational unit	Department of Phonetics
ECTS credits	3
ID	36733
Semesters	Winter
Teachers	Nikolaj Lazić, PhD, Full Professor (primary, L)
Hours	Lectures 30
Prerequisites	None
Goal	The course provides an overview of the theoretical foundations of any type of communication. All elements of the communication process are analyzed in detail, through different media, different situations, different participants in the process, thus providing the basis for researching all forms of communication.
Teaching methods	Lectures
Assessment methods	Oral exam

Learning outcomes

1. Distinguish and describe the components of the communication process
2. Distinguish and describe the media in the communication process
3. Mathematically describe and explain the impact of the information
4. Distinguish the informative from the redundant in different forms of communication
5. Define the concepts of information, entropy and redundancy in the communication process

Content

1. Introduction to the course; information as a measure of all values; cybernetics and its brief history; etymology and fundamental meaning of the words cybernetics and information
2. Entropy; thermodynamics; probability and causality; Maxwell's demon; Living and non-living objects; negentropy
3. Entropy and time; stopping time, speeding up and reversing; estimating the age of objects; persistence as a measure of value; social time; progress
4. Continuum and discontinuum; siversity and dissimilarity; freedom and diversity; individual freedom and order
5. Information and expectation; probability function and amount of information; bit as a unit of information; binary background of the information measure; logarithmic relationship of information effect and information stimulus
6. Equiprobability – zero degree of approximation; stochastic processes – the first degree of approximation; higher degrees of approximation – Markov process; examples with speech and other examples
7. Calculating the average amount of information per event from the first degree of approximation; illustrations on simple numerical examples
8. Relative information; redundancy; the importance of redundancy in the communication process; calculating and measuring redundancy
9. Destination of the information as the nucleus of the communication process; source of information; abstract model of destination and source; matching diversity in source and destination; overcoming the mismatch in diversity by descending to common diversity, the learning process as process of connecting particles
10. Rational formation of expectations from relative frequency, from the observation of order and form, from rhythm; paradoxical amounts of expectation from motivational weights, mobit (motivational bit); relative frequency and expectation mismatches; a mathematical model of that state
11. Form and organization; desirable and undesirable sources; noise as unwanted communication; pleasant and uncomfortable (adaptive) communication; reasons for communication: realization of projects, consolidation (conservation) of forms, reconstruction (restoration) of the damaged forms

12. Erosion of the information source; information source as entropy (in-form); information as a reduction of uncertainty about the source (i.e. as its shaping – in-forming); Barren communication – a game, i.e. existential eternal communication
13. Complete communication scheme; parts: source, coder, transmitter, channel, receiver, decoder, destination; communication forms: information, message, signal (stimulus); harmonizing communication process parts; communication losses, additions; feedback
14. Communicational directions – temporal and spatial; natural and conventional signs, codes; "Channeled" channels, open channels – mass communication; temporal and spatial societies and mentalities
15. The concept of media; McLuhan's cold and hot media; condensed and diluted signals; cold and hot senses; mental level of cold and hot media; democracy as a cold medium

Master's Thesis for the Graduate Study of Phonetics

Name	Master's Thesis for the Graduate Study of Phonetics
Organizational unit	Department of Phonetics
ECTS credits	15
ID	124609
Semesters	Summer
Teachers	Arnalda Dobrić, PhD, Assistant Professor (primary, S) Ana Vidović Zorić, PhD, Associate Professor (primary, S) Diana Tomić, PhD, Associate Professor (primary, S) Elenmari Pletikos Olof, PhD, Associate Professor (primary, S) Gabrijela Kišiček, PhD, Associate Professor (primary, S) Iva Bašić, PhD, Assistant Professor (primary, S) Ines Carović, PhD, Associate Professor (primary, S) Jelena Vlašić Duić, PhD, Full Professor (primary, S) Marko Liker, PhD, Full Professor (primary, S) Nikolaj Lazić, PhD, Full Professor (primary, S) Veno Volenec, PhD, Associate Professor (S)
Hours	Seminar 0
Prerequisites	None
Goal	
Teaching methods	
Assessment methods	
Learning outcomes	
Content	

Methodology of phonetic care of voice and pronunciation (an individual approach)

Name	Methodology of phonetic care of voice and pronunciation (an individual approach)
Organizational unit	Department of Phonetics
ECTS credits	5
ID	125404
Semesters	Summer
Teachers	Iva Bašić, PhD, Assistant Professor (primary, L, ME)
Hours	Lectures 15 Methodology exercies 30
Prerequisites	None
Goal	- to teach students what are the risk factors for voice disorders - to teach students the influence of positive and negative effects of life and vocal habits on voice production - to teach students the measures to prevent certain voice disorders and vocal fatigue - teach students to perceptually analyze and evaluate (a)typical voices - teach students to analyze speech sample and create a phonetic proposal for a work plan on the prevention of vocal disorders, voice aesthetics, etc. - teach students to design and implement individual and group phonetic exercises
Teaching methods	- lectures - independent student tasks - exercises - professional training for students - mixed e-learning
Assessment methods	Pre-exam: 60 % Phonetic proposal for a work plan: 20 % Independent task: 20 %

Learning outcomes

1. Assess and comment on the diction of vocal professionals
2. Distinguish acoustic parameters when assessing voice quality
3. Anticipate aesthetic and functional voice difficulties
4. Valorize voice quality and diction according to phonetic status
5. Create and recommend individual exercises for voice and pronunciation
6. Identify the possible consequences of permanent vocal fatigue
7. Conduct exercises to correct diction and improve voice quality on the filter

Content

1. Introductory lecture about the course and students' obligations.
2. The importance of voice quality of vocal professionals
3. Phonetic voice description and phonetic methods for correcting voice timbre
4. Voice history questionnaire; exercises: analysis of the questionnaire on the anamnesis of the voice and exact methodical instructions
5. Analysis of students' voice and pronunciation (part 1); exercises: individual work on the filter – protective and aesthetic line
6. Student voice and pronunciation analysis (part 2); exercises: individual voice and pronunciation correction
7. Phonetic pronunciation exercises (part 1); exercises: individual diction correction

8. Phonetic pronunciation exercises (part 2); exercises: individual diction correction
9. Therapeutic accent method; exercises: group and individual performance of accent exercises for voice
10. Diction – articulation and prosody; exercises: matching vocal articulation and prosody (elite speech professionals)
11. Respiration and myofunctional exercises
12. Public speech in front of the microphone; voice impostation in public speech Individual public speech of the microphone
13. Acoustic, perceptual and spectral phonetic assessment of (a)tipical voices Perceptive auditive phonetic assessment of (a)tipical voices; proposition of phonetic exercises for different types of atypical votes
14. Pre-exam
15. Proposals for final grades

Methodology of scientific work

Name	Methodology of scientific work	
Organizational unit	Department of Phonetics	
ECTS credits	3	
ID	117515	
Semesters	Winter	
Teachers	Marko Liker, PhD, Full Professor (primary, L, S)	
Hours	Lectures Seminar	15 15
Prerequisites	None	
Goal	The aim of this course is to introduce students to scientific discourse and to enable them to plan their own research projects through a series of steps in experimental research design. After completing this course, students will be able to write and present a research proposal.	
Teaching methods	Lectures, assignments and seminars	
Assessment methods	Guided seminar assignments and oral exam	

Learning outcomes

1. Asses relevant literature
2. Plan a research project
3. Identify a research problem and asses research techniques and methods
4. Interpret data and distinguish between relevant and irrelevant data for a particular research question
5. Asses research methods applied in published literature
6. Visually present data
7. Present a research proposal/project

Content

1. Course introduction: aim, course outcomes, students' responsibilities, and evaluation
2. Basic terminology: science and pseudoscience; method; methodology, variables, hypotheses.
3. Research design: research question
4. Research design: research context and hypotheses
5. Research design: experimental design and data acquisition planning
6. Research design: planning of analysis and interpretation of the data
7. Research design: planning of analysis and interpretation of the data
8. Research design: publishing plan
9. Synopsis: structure and purpose
10. Research collaborations
11. Research ethics
12. Research follow-up
13. Research proposal presentations
14. Research proposal presentations
15. Course conclusion

Methodology of the individual approach to the rehabilitation of hearing and speech

Name	Methodology of the individual approach to the rehabilitation of hearing and
Organizational unit	Department of Phonetics
ECTS credits	5
ID	160755
Semesters	Summer
Teachers	Arnalda Dobrić, PhD, Assistant Professor (primary, L, E)
Hours	Lectures 5 Exercies 55
Prerequisites	None
Goal	The aim of the course is to enable students to prepare and implement a program of individual hearing and speech rehabilitation.
Teaching methods	Lectures, practical work, on-site exercises, discussion and analysis
Assessment methods	Evaluation of 2 rehabilitation sessions – one with a preschool child and one with an elementary-school child, lesson plans and accompanying materials used in the session; evaluation of the logbook

Learning outcomes

1. Identify different types of hearing and speech disorders
2. Analyze client's dossier and plan appropriate rehabilitation
3. Evaluate client's progress and modify the rehabilitation procedures if needed
4. Predict the course of the rehabilitation for the respective client
5. Choose appropriate procedures for users of cochlear implants
6. Choose appropriate procedures depending on the age and social environment of the respective client
7. Depending on the client, define problems in the group work and re-evaluate chosen rehabilitation procedures

Content

1. Introductory lecture on the individual rehabilitation using the verbotonal method
2. Practical work (exercises) in a preschool institution
3. Practical work (exercises) in a preschool institution
4. Practical work (exercises) in a preschool institution
5. Practical work (exercises) in a preschool institution
6. Practical work (exercises) in a preschool institution
7. Practical work (exercises) in a preschool institution
8. Evaluation of the students' independent rehabilitation
9. Practical work (exercises) in school (weeks 9–7)
10. Practical work (exercises) in school (weeks 9–7)
11. Practical work (exercises) in school (weeks 9–7)
12. Practical work (exercises) in school (weeks 9–7)
13. Practical work (exercises) in school (weeks 9–7)
14. Practical work (exercises) in school (weeks 9–7)
15. Evaluation of the students' independent rehabilitation session in the school; conclusion of the course

Methodology of working on speech in electronic media

Name	Methodology of working on speech in electronic media
Organizational unit	Department of Phonetics
ECTS credits	5
ID	124278
Semesters	Winter
Teachers	Jelena Vlašić Duić, PhD, Full Professor (primary, L, ME)
Hours	Lectures 30 Methodology exercies 30
Prerequisites	None
Goal	The aim of the course is to offer theoretical and practical knowledge and skills necessary to work with elite speech professionals in electronic media with respect to different genres and speech styles. The students will also acquire and implement the knowledge of vocal care and pronunciation. A specific goal is to equip students with the competence to work on improving speech performance and rhetorical design in working with speech professionals, as well as to apply acquired knowledge and skills in teaching speech in electronic media.
Teaching methods	Seminars, combined e-learning, independent student projects
Assessment methods	Class attendance – 10% (maximum – no absences), midterm and final written exam – maximum 50% (midterm 25%: excellent grade – 5; final 25%: excellent grade – 5), visit to the national TV network (HRT) – 10% (10 hours of observation at HRT), moderator of a cycle of exercises for voice and pronunciation (VZGI) – 10%, phonetic status – 10%, short talk – 10%. Total: = 100%. Grading scale: 60–70% = sufficient (2); 71–80% = good (3); 81–90% = very good (4); 91–100% = excellent (5).

Learning outcomes

1. Critically assess the characteristics of archetypal speech in speech professionals in electronic media
2. Recommend exercises for improvement of conversational speech and speech elegance in vocal and speech professionals
3. Critically assess public speaking in electronic media
4. Evaluate speaking in electronic media on the basis of phonetic status
5. Design and implement individual and group exercises for improvement of vocal quality
6. Create and carry out individual exercises for improving the diction of the speakers in electronic media
7. Assess speech performance, rhetorical design and visual signs of vocal professionals in electronic media

Content

1. Introductory lecture about the methodology of working on speech in electronic media; input and output competences; spoken and associated communication – scope of lectures aimed at speech professionals
   Exercises (2 periods): Familiarizing students with their obligations – literature, preparing for exercises, visits to the TV network, midterms
   Distribution of topics (moderating a cycle of VZGI – Form 1, short teaching-methods presentations – 15 min, phonetic status of speech professionals)
2. Lecture (2): prosodic factors of TV and radio speech (Form 2)
   Temporal parameters of speech – tempo: TA, TG, TG – TA (syllable/s); pause-to-speech ratio (%) on the examples of TV speech according to speech genres
   Exercises (2): VZGI – Part I: moderators of a cycle of phonetic exercises for voice and pronunciation under teacher's supervision (4 student moderators) based on original exercises authored by Škarić, I. & Varošanec-Škarić, G. In: Varošanec-Škarić, G. (2010). Fonetska njega glasa i izgovora. Zagreb: FF press.

3. Lecture (2): Characteristics of Croatian National Media Rhetoric School – archetypal speech: conversational speech, conversation, speaker-focus; purism; elegance
   Exercises: VZGI – Part II: moderators of a cycle of phonetic exercises for voice and pronunciation under teacher's supervision (4 student moderators) based on original exercises authored by Škarić, I. & Varošanec-Škarić, G. In: Varošanec-Škarić, G. (2010). Fonetska njega glasa i izgovora. Zagreb: FF press. (pp. 56–83). Student's performance of VZGI by teacher's supervision.
4. Lecture (2): Characteristics of Croatian National Media Rhetoric School
   Speaking etiquette
   Exercises (2): Recording the news
5. Lecture (2): Phonetic status (Form 3)
   Exercises (2): Mastering the phonetic status protocol (Part 1) on the example of the speech of vocal professionals
   Exercises in diction (vowel and consonant enunciation);
   Speech performance – news (reading style)
6. Lecture (2): Midterm 1 – Phoneti status (theoretical and practical part); Varošanec-Škarić, G. (2010). Fonetska njega glasa i izgovora. Zagreb: FF press. (pp. 100–110) i Škarić, I. (2009). Hrvatski izgovor. Zagreb: Nakladni zavod Globus.
   Chapter: Odlike hrvatske državne medijske govorničke škole (pp. 51–62)
   Exercises (2): Application of the phonetic status protocol (Form 4, Part 2)
7. Lecture (2): Television genres – speech performance and rhetorical design; news anchor's speech – phonetic status
   Exercises (2): Speech exercises – distant and emphatic style in the news
8. Lecture (2): Pronunciation of foreign names (Form 5)
   Exercises (2): Speech exercises – pronunciation of foreign names
9. Lecture: Voice and visual signs on TV and the Internet
   Exercises (2): Analysis of the speech and rhetorical design of moderators in TV debates (including political debates), mosaic shows (implementation of phonetic status)
10. Lecture (2): Speaking etiquette in media speech
    Exercises: Analysis of spaking etiquette of anchors/moderators in various genres
11. Lecture (2): Methodology of phonetic research of TV and radio speech
    Exercises (2): Phonetic status
12. Lecture (2): Communication strategies and speaking styles
    Exercises (2): Short presentations on assigned topics (20 min. each); acoustic analyses of the voice and speech of TV and radio vocal professionals
13. Lecture (2): Research into speech on TV
    Exercises (2): Short presentations on assigned topics (20 min. each); acoustic analyses of the speech of vocal professionals
14. Lecture (2): Final written exam – theoretical part (compulsory literature)
    Exercises (2): Phonetic status of TV and radion speech professionals
15. Grading
    Possibility of a make-up written test

Methods in teaching rhetoric

Name	Methods in teaching rhetoric
Organizational unit	Department of Phonetics
ECTS credits	5
ID	124277
Semesters	Winter
Teachers	Jelena Vlašić Duić, PhD, Full Professor (primary, L, ME)
Hours	Lectures 30 Methodology exercies 30
Prerequisites	None
Goal	The aim of the course is to enable future rhetoric teachers to organize classes with speaking content, to independently select, design and apply teaching methods and techniques in the processing of rhetorical content, and also to design teaching that will motivate students to understand rhetorical theory and develop rhetorical skills.
Teaching methods	Lectures and exercises
Assessment methods	Continuous evaluation, demonstration lesson, seminar assignment, colloquium, oral exam

Learning outcomes

1. Design teaching objectives and outcomes of the subject Rhetoric
2. Explain teaching outcomes in the context of Bloom's taxonomy
3. Plan, design and conduct the teaching of the subject Rhetoric in high schools, colleges and universities
4. Analyze current curricula of the subject Rhetoric in Croatian schools
5. Determine the criteria in evaluating a speech delivery and evaluate student achievement
6. Prepare and hold a demonstration lesson in Rhetoric classes in high school
7. Explain and apply motivational strategies and learning styles

Content

1. Introduction to the methods of teaching rhetoric; analysis of rhetorical topics in Croatian language textbooks and workbooks for high schools
2. Teaching methods as a scientific discipline; interdisciplinarity; analysis of rhetorical topics in textbooks and workbooks for high schools available in Croatian language
3. Speaking as a subject; models of processing lessons in Croatian language textbooks for high schools
4. Curriculum; instructions on classroom observations and keeping a diary of teaching attendance
5. Determining the teaching outcomes: Bloom's taxonomy; determining outcomes in the design of the curriculum and outcomes of teaching units
6. Learning styles; application of learning styles in teaching rhetoric
7. Teaching methods; selection of methods in teaching rhetoric
8. Teaching aids; analysis of existing curricula for the subject Rhetoric in Croatian schools
9. Motivational procedures in teaching; methodological approach to selected rhetorical topics
10. Types of lessons; methodological approach to selected rhetorical topics
11. Preparation of a lesson plan; methodological approach to selected rhetorical topics
12. Evaluation criteria of rhetorical topics; student oral presentations of methodological topics
13. Classroom observations, evaluation and assessment; student oral presentations of methodological topics
14. Analysis of diaries of teaching attendance; Student oral presentations of methodological topics
15. Colloquium; evaluation and conclusion

Neurophonetics

Name	Neurophonetics
Organizational unit	Department of Phonetics
ECTS credits	4
ID	265959
Semesters	Summer
Teachers	Ana Vidović Zorić, PhD, Associate Professor (primary, L, S) Miloš Judaš, PhD, Full Professor (L) Boška Munivrana Dervišbegović, PhD, Assistant Professor (S)
Hours	Lectures 30 Seminar 15
Prerequisites	None
Goal	This course aims to introduce students to the fundamentals of neuroscience with emphasis on speech and especially phonetics, and to give them an overview of the contemporary research methods in the study of brain functions.
Teaching methods	Lectures, seminars, classroom discussion
Assessment methods	Class attendance, preliminary exam, seminar paper, written exam, oral exam; standard grading.

Learning outcomes

1. 1. Explain the typical process in speech production and speech processing in specific cases from a neurobiological perspective.
2. 2. Identify the basic neuroanatomical structures involved in speech processing and explain their role in speech.
3. 3. Explain the similarities and differences between speech motor skills and other motor skills.
4. 4. Compare the perception of speech and the perception of non-speech sounds from a neurobiological perspective.
5. 5. Critically discuss significant theories of speech perception and production.
6. 6. Explain significant methods of examining neurological processes in speech.

Content

1. L: Historical overview of the discoveries of the brain functions
   S: Choosing the topics of the seminar paper and giving instructions for its preparation
2. L: Anatomy of the nervous system: phylogenetic and ontogenetic development
   S: Discussion after reading the assigned scientific paper
3. L: Anatomy of the nervous system: five parts of the brain and their functions
   S: Discussion after reading the assigned scientific paper
4. L: Neuron, nerve impulse propagation and synaptic transmission
   S: Students' oral presentations on the chosen topic and discussion
5. L: Brain research methods
   S: Students' oral presentations on the chosen topic and discussion
6. L: Functional principles and models 1
   S: Students' oral presentations on the chosen topic and discussion
7. L: Functional principles and models 2
   S: Students' oral presentations on the chosen topic and discussion
8. P: Lateralization and localization of functions
   S: Students' oral presentations on the chosen topic and discussion
9. L: Lateralization and gender
   S: Students' oral presentations on the chosen topic and discussion
10. L: Lateralization and hand preference
    S: Students' oral presentations on the chosen topic and discussion

11. L: Speech, language and neural organization
    S: Students' oral presentations on the chosen topic and discussion
12. L: Brain and phonetics
    S: Students' oral presentations on the chosen topic and discussion
13. L: Brain and speech and language disorders
    S: Students' oral presentations on the chosen topic and discussion
14. L: Bilingualism and brain organization
    S: Students' oral presentations on the chosen topic and discussion
15. L: Final considerations
    S: Evaluation of student work; revision

Orthoepy of Croatian language

Name	Orthoepy of Croatian language	
Organizational unit	Department of Phonetics	
ECTS credits	4	
ID	265955	
Semesters	Winter	
Teachers	Iva Bašić, PhD, Assistant Professor (primary, L, S, SE)	
Hours	Lectures	15
	Seminar	15
	Speech exercises	15
Prerequisites	None	
Goal	The aim of the course is for students to acquire basic knowledge in the field of orthoepy, varieties of Croatian language based on recent studies. Through seminars, students should critically contemplate specific orthoepic questions in the Croatian language. Second aim of this course is for students to recognize and perform all Croatian standard accents and to acquire general pronunciation of the Croatian language.	
Teaching methods	Lectures, seminars and exercises	
Assessment methods	tests – 70%, seminar presentation – 30%; total: = 100%	

Learning outcomes

1. 1. Auditive recognition, pronunciation and marking accents of Croatian language
2. 2. Apply knowledge about paradigmatic shifts of place, tone and duration of accent.
3. 3. Analyze the implementation of the orthoepic norm in public speech.
4. 4. Elaborate prosodic characteristics of speech sound, syllable and word.
5. 5. Apply orthoepic rules in the pronunciation of consonants and vowels.
6. 6. Critically analyze and compare accents in normative manuals of the Croatian language.
7. 7. Elaborate discrepancies between accent norm and usage.

Content

1. P1 Introductory lecture about the course. Student obligations
   P2 Presentation of the semester work plan; seminar assignments; assigning students to smaller work groups
   V1 Studio acoustic recording of students.
2. P3 Speech and language; phonetic transcription of speech; basic orthoepic terminology.
   P4 Defining orthoepic and Croatian orthoepic norms: purpose and goals.
   V2 Transcription of verified audio speech samples (broad and narrow analysis).
3. P5 Standard variety; elastic stability; basis of the Croatian standard language.
   P6 General accent rules 1 – distributional accent rules of the Croatian language.
   V3 Preliminary auditory test of recognition of accents of the Croatian standard language.
4. P7 Orthoepic rules in the pronunciation of consonants and vowels.
   P8 Language as a space of variety – historical, regional, social and situational factors.
   V4 Exercises in recognizing accents of the Croatian standard language on verified audio recordings of speech – examples with different levels of reduction of linguistic material – level 1.
5. P9 Varieties of the Croatian language: high and low variety, neutral variety.
   P10 Views on the accent norm – traditional, descriptive and central current.
   V5 Exercises in recognizing accents of the Croatian standard language on verified audio recordings of speech – examples with different levels of reduction of linguistic material – level 2.
6. P11 Discrepancies in normative manuals of the Croatian standard language.
   P12 General accent rules 2: Paradigmatic changes of place, tone and duration.

V6 Exercises in recognizing accents of the Croatian standard language on verified audio recordings of speech – examples with different levels of reduction of linguistic material – level 3.

7. P13 Orthoepic norm in public speaking – code and usage.
   P14 Written test – testing auditory perception of Croatian accents.
   V7 Exercises in accent production on pre-marked examples (marked accents and post-accent lengths) – lexical level.
8. S1 IPA narrow and wide transcription: pronunciation of vowels and accents of the Croatian language.
   S2 Accent and its functions; division of the language with regard to the place and tone of accent.
   V8 Exercises in accent production on pre-marked examples (marked accents and post-accent lengths) – sentence level.
9. S3 Functional styles of the Croatian standard language.
   S4 Distributional accent rules and deviations from them – accentual doublets, descending tone of the non-initial syllable.
   V9 Exercises in accentual production on unmarked examples – sentence level.
10. S5 Orthoepic rules in the pronunciation of consonants and vowels and deviations from them (typical speech: regionality, hypo- and hypercorrectness; atypical speech).
    S6 Standard language and organic idiom.
    V10 Auditory assessment of orthoepic norms in public speech.
11. S7 Disagreements between accentual normativism and practice.
    S8 Sociophonetic research on the Croatian orthoepic norm.
    V11 Prosodic characteristics of vowels, syllables and words.
12. S9 Discrepancies in normative manuals of the Croatian standard language.
    S10 General accent rules 2: Paradigmatic changes of place, tone and duration.
    V12 Analysis of verified audio speech examples of paradigmatic accent changes.
13. S11 Analysis of the implementation of orthoepic norms in public speaking.
    S12 Analysis of speech recordings at the beginning and end of the course. (peer evaluation – part 1)
    V13 Studio acoustic recording of students.
14. S13 and S14 Written colloquium - test of theoretical knowledge.
    V14 Analysis of voice recordings at the beginning and end of the course. (peer evaluation – part 2)
15. P15 and S 15 Learning outcomes at the course and program level; proposal for final grades.
    V15 Surveying students about their activities and experience of participating in the course.

Orthophony

Name	Orthophony
Organizational unit	Department of Phonetics
ECTS credits	5
ID	51613
Semesters	Winter
Teachers	Iva Bašić, PhD, Assistant Professor (primary, L, SE)
Hours	Lectures 30 Speech exercises 15
Prerequisites	To pass course it is necessary to attend course General Phonetics
Goal	The aim of the course is to enable students to become competent evaluators of voice quality, to gain practical experience in using protocols for the evaluation of voice and speech as well as to develop the ability to evaluate the aesthetic aspect of voices. The students will also be able to apply exercises for voice and pronunciation in individual and group work. In addition, they will be familiar with the acoustic correlates of various voice features.
Teaching methods	Lectures, exercises, combined e-learning
Assessment methods	Oral and written exam, evaluation of student performance during exercises

Learning outcomes

1. Determine the phonetic status of a voice (healthy, normal, pleasant and dysphonic)
2. Correlate timbre quality with voice posturing
3. Classify voices on the basis of acoustic spectral areas
4. Explain the protocols for voice evaluation
5. Interpret the protocol of the vocal voice profile
6. Calculate the vocal tract size on the basis of F4
7. Calculate the average fundamental frequency of a voice
8. Compare different voice posturings and determine phonation types
9. Differentiate glottal and supraglottal posturing
10. Successfully select the appropriate voice protocol

Content

1. Lecture – Information about the course. Voice pedagogy; orthophony.
   Exercises - Protocol of voice recording. Analysis and discussion (typical voices).
2. Lecture – Descriptive and indexical reference to voice quality; analytical evaluations of voice in Cicero's and Quintilianus' works are related to the current indexical classification
3. Lecture – Phonetic determination of voice and indexical characteristics of voice; vocal posturing; narrower definition of the quality of voice as an organic and phonetic component; more detailed classification of phonatory types into simple types, creaky and breathy as well as complex phonatory types
4. More detailed classification of phonatory types into simple types, creaky and breathy as well as complex phonatory types.
5. Lecture – Supraglottal posturing of the vocal tract; posturing terminology in longitudinal changes of the vocal tract, transversal positioning (e.g. labialization, pharingealization, tongue positioning)
6. Lecture – Protocol of the vocal profile analysis; mastering the protocol for the assessment of vocal forms of voice and speech
7. Lecture – Aesthetics of voice; definitions of the terms aesthetics of voice and fashionable voice; the relationship between aesthetic and semantic information in the timbre
8. Lecture – Voice care and lifestyle; questionnaires about voice care (problem description, lifestyle, voice use); the parameters of the latter are correlated with average acoustic parameters

9. Lecture – Initiation; breathing posture; the relationship between breathing and subglottal pressure, inspiratory and expiratory muscles
10. Lecture – Voice exercises: principles and order of exercises for voice and pronunciation; starting with the wider theoretical framework of various types of voice exercises (miofunctional, alternative, warm-up and cool-down exercises, accent therapy), with particular emphasis on phonetic exercises for voice and pronunciation
11. Lecture – Extended phonation and vibrotactile feedback; explanation of extended phonation and phonation with enhanced self-listening and associated effects; particular emphasis on chest register and creaky voice
12. Lecture – Synthesis of exercises and speech warming up
    The exercises are summarized in a special integrated exercise that represents a synthesis of the exercises for voice and pronunciation. Examples are used to explain the reliance of speech on the lower breathing space, breastbone vibrations, anterior palatine point, and enhanced self-listening.
13. Lecture – Preparations for the exam – Brief revision
    Systematic accelerated recapitulation of the material covered, with special emphasis on possible exam questions. The questions are briefly analyzed and attention is paid to the relevant questions in the book Timbar. Instructions are provided on how to study the material covered in the course so as to pass the exam successfully.
14. Lecture – Voice posturing in the arts; various types of voice posturing are discussed in terms of the universal aesthetic criterion in different areas.
15. Written exam

Phonetic transcription

Name	Phonetic transcription	
Organizational unit	Department of Phonetics	
ECTS credits	5	
ID	265952	
Semesters	Summer	
Teachers	Ines Carović, PhD, Associate Professor (primary, L, S, SE)	
Hours	Lectures Seminar Speech exercises	15 30 15
Prerequisites	None	
Goal	The aim of the course is to enable students to get acquainted with the principles of phonetic transcription as well as to acquire skills for good phonetic listening and transcription of different speech samples, including Croatian standard and dialects, and different foreign languages. In the seminar, students present phonetic systems of different languages and their transcription, and they individually gather examples of less known languages. They develop perception, production and transcription skills through practice. The skills of speech status evaluation of different speakers are developed.	
Teaching methods	Direct instruction: teaching through lectures/seminars/exercises; presentations; classroom discussion	
Assessment methods	Class attendance, preliminary exam, seminar paper, written exam, oral exam	

Learning outcomes

1. Know and use International Phonetic Transcription (IPA) signs
2. Perceptually analyse and transcribe typical speech (segments and suprasegments)
3. Apply phonetic transcription in sentence prosody.

Content

1. Principles and development of phonetic transcription
2. Transcription of non-segmental characteristics of speech (stress, tone, prosody)
3. Transcription of phonation and respiratory characteristics of speech
4. Articulatory characteristics and transcription of plosives
5. Articulatory characteristics and transcription of affricates and fricatives
6. Articulatory characteristics and transcription of nasals, laterals and trills
7. Articulation characteristics and transcription of approximants and vowels
8. Articulation characteristics and transcription of clicks and phonemes articulated by multiple articulatory gestures
9. Transcription of speech disorders
10. Different transcription systems
11. Perspectives of transcription development
12. Letter (pictogram, ideographic, phonetic, alphabetic); relationship between speech and letters.
13. Speech and mental representation
14. Communication (parts of the communication process); language and language coding.
15. Definition of semiotics as a science; sign (symbol, references, referents, sign models, sign components, sign typology and sign systems).

Phonetics and phonology

Name	Phonetics and phonology
Organizational unit	Department of Phonetics
ECTS credits	3
ID	51306
Semesters	Summer
Teachers	Veno Volenec, PhD, Associate Professor (primary, L)
Hours	Lectures 30
Prerequisites	None
Goal	The aim of this course is to provide an introduction to contemporary phonology and its relationship with phonetics.
Teaching methods	Lectures.
Assessment methods	Written exam.

Learning outcomes

1. Being able to define basic concepts in phonetics and phonology.
2. Understanding contemporary phonological theory.
3. Knowing how to apply phonological theory in the description of particular I-languages.
4. Being able to explain the relationship between phonology and phonetics, and how that relationship depends on the definition of language.

Content

1. Introduction to the course: aim, purpose, structure, duties.
2. What is language? Various concepts of language. Core properties of I-language.
3. Linguistic competence and linguistic performance. I-language. Mental grammar and its structure. Generative grammar.
4. What is speech? Core properties of speech.
5. Linguistics and its branches. Phonology. Phonetics and its branches. What is the relationship between phonology and phonetics?
6. Fundamentals of phonetics 1. Vowels.
7. Fundamentals of phonetics 2. Consonants.
8. The architecture of phonological competence. Underlying and surface phonological representations.
9. Segments. Phonemes and allophones.
10. Distinctive features.
11. Derivation. Phonological rules.
12. Phonological alternations.
13. Description of Croatian phonological alternations.
14. Prosody. Suprasegmental phonology. Syllable. Stress. Tone. Length.
15. Course conclusion.

Psychoacoustics - seminar

Name	Psychoacoustics - seminar
Organizational unit	Department of Phonetics
ECTS credits	5
ID	124279
Semesters	Summer
Teachers	Elenmari Pletikos Olof, PhD, Associate Professor (primary, S)
Hours	Seminar 30
Prerequisites	None
Goal	The aim of this course is to introduce basic psychoacoustic concepts and understanding of the comprehensive physical and cognitive issues related to sounds and listening. Students carry out their own pilot study on a selected psychoacoustic topic.
Teaching methods	Short interactive lectures, seminar discussions, group work, experiments.
Assessment methods	Seminar research project, written and oral exam.

Learning outcomes

1. Explain the basic psychoacoustic concepts: pitch, loudness, timbre, masking, and localization of sound source in space
2. Independently plan and implement scientific research in the field of phonetic sciences
3. Apply psychoacoustic knowledge in the design of acoustic stimuli, experimental procedures and the interpretation of results
4. Design experiments with a speech signal
5. Critically evaluate the scientific literature in the field of phonetic sciences
6. Present the results and relevant research conclusions in the field of phonetic sciences

Content

1. Course introduction: aim, student seminars and evaluation; overview of areas of interest in the field of psychoacoustics
2. Pitch; dependency on fundamental frequency, intensity and duration; semitone, interval, octave
3. Loudness; decibel scale, phon and son
4. Timbre; selecting a research topic
5. Sound masking; selecting a research topic
6. Localization of sound in space
7. Presentation of literature relevant for the research topic
8. Presentation of literature relevant for the research topic
9. Formulation of research questions and research hypotheses
10. Designing the experiment
11. Conducting a pilot research
12. Analysis of data
13. Presentation of research results
14. Submission of written seminar paper
15. Evaluation of the teacher and the course. Evaluation of the individual student progress

Public speaking skills

Name	Public speaking skills
Organizational unit	Department of Phonetics
ECTS credits	4
ID	225465
Semesters	Summer
Teachers	Gabrijela Kišiček, PhD, Associate Professor (primary, L, S) Ines Carović, PhD, Associate Professor (primary, L, S)
Hours	Lectures 15 Seminar 15
Prerequisites	None
Goal	The main goal of is to prepare students for efficient public speaking which includes both content and speech delivery. Students will be introduced to five rhetorical cannons and basic rules for efficient public speaking. During the course students will practice and rehearse each of the cannons. Further on, the goal is to master the rhetorical rules for participating efficiently in monological and dialogical rhetorical genres. The basic goal is to improve rhetorical skills and prepare students for future occupation and professional carrier.
Teaching methods	Lectures Seminars
Assessment methods	Delivery of specific rhetorical genres - 30% Written exam - 50% Activities and class attendance - 10 % Paper presentation - 10%

Learning outcomes

1. sum up all parts of speech structure and illustrate with example
2. differ and recognize rhetorical genres
3. detect and name argument schemes
4. detect and name most frequent fallacies
5. detect and explain rules of efficient meetings
6. sum up and classify nonverbal signs
7. detect and classify negotiations genres
8. detect and classify specific rhetorical genres
9. prepare and deliver monologue following rhetorical rules
10. participate in a dialogue following rhetorical rules

Content

1. Introduction to rhetoric - historical overview with the intent to emphasize the relation between society and rhetoric. Overview of rhetorical education - from sophists and Roman rhetoric to medieval universities and contemporary rhetoric.
2. Contemporary approaches to rhetoric - importance of an audience and situation on rhetorical effectiveness. Perelman`s approach to rhetoric, particular and universal audience.
3. Rhetorical genres - historical and contemporary oversight. Contemporary genres - monologues and dialogues.
4. Monologue - speech preparation (inventio, dispositio, elocutio, memoria, pronuntiatio)
5. Inventio - designing the standpoint, argument support, differing between weak and strong arguments, differing between legitimate arguments and fallacies
6. Dispositio - speech structure (introduction, narration, argumentation, conclusion), argument distribution
7. Elocutio - speech style and figurative of speech, elegance and language
8. Pronuntiatio - effective speech delivery, basics of nonverbal communication

9. Delivery of a monologue - analysis and evaluation
10. Dialogue - meeting. Rhetorical rules for effective meeting
11. Dialogue - brainstorm. Specific genre of a meeting with the intent of solving the problem.
12. Dialogue - negotiation. Rhetorical rules for effective planning, organizing participating at the negotiation.
13. Specific rhetorical genres - speeches in special occasion. Rhetorical characteristics of occasional speaking (historical and contemporary overview). Delivery of special occasions speech, analysis and evaluation.
14. Specific rhetorical genres - impromptu speech. Rules for efficient improvisation. Analysis and evaluation of student speeches. Addressing the potential shortcomings and advantages of every specific student.
15. Specific rhetorical genres - speaking in media: media statement, commentary...Rhetorical rules for efficient media appearance.

Rhetoric

Name	Rhetoric
Organizational unit	Department of Phonetics
ECTS credits	6
ID	51321
Semesters	Summer
Teachers	Gabrijela Kišiček, PhD, Associate Professor (primary, L) Iva Bašić, PhD, Assistant Professor (primary, S)
Hours	Lectures 30 Seminar 30
Prerequisites	To pass course it is necessary to attend course General Phonetics
Goal	The aim of the course is to acquaint students with the basic rhetorical rules, to acquire basic speaking skills and public speech analysis skills. The goal is to instruct the student in rhetorical norms and prepare them for work in the public speaking profession by mastering the basic rhetorical skills.
Teaching methods	Lectures, seminars and workshops, student tasks and mentoring work
Assessment methods	Speeches – 40%; written exam – 60%

Learning outcomes

1. Enumerate the elements of audience profiling
2. Enumerate and use examples to explain the elements of initial speech design
3. Enumerate and illustrate the elements of speech composition
4. Enumerate and exemplify the basic concepts of argumentation
5. Name and recognize eristical tactics
6. Enumerate and illustrate the rhetorical characteristics of good and bad ceremonial speeches
7. Name the most important rhetoricians (historical and contemporary)
8. Name, recognize and apply rhetorical figures in speech
9. Deliver public speech according to adopted rhetorical rules
10. Analyse and evaluate public speech

Content

1. Introduction to the rhetoric; definition and features of public speech; distribution of student papers and instructions for their speeches
2. Elements of the public speech design – five basic dimensions; rules for speech composition
3. Standpoint – formal and substantive rules; types of claims; practicing designing standpoints; delivering student papers (speech - 10 min) – Aristotle, Cicero
4. A historical review of rhetoric, delivering student papers (speech - 10 min) – Quintilian, Meyer
5. Argumentation; basic concepts; evidence, delivering student papers (10-minute speeches) – Fahenstock & Secor, Groarke & Tindale
6. Argumentation; basic concepts; five types of argumentative connections, delivering student papers (10-minute speeches) – Škarić, Weston, Walton
7. Fallacies, delivering student papers (10-minute speeches) – Tindale, Schopenhauer
8. General Toulmin model, delivering student papers (10-minute speeches) – Toulmin, Petrović
9. Perelman's new rhetoric – argumentation by merging and separating and imitating formal logic; topics, delivering student papers (10-minute speeches) – Perelman, Hasanbegović
10. Humor in public speaking, delivering student papers (10-minute speeches) – Bergson, Jaffe
11. Rhetorical figures; delivering student papers (10-minute speeches) – Freely & Steinberg, Lucas
12. Negotiations; rhetoric in the media, delivering student papers (10-minute speeches) – Tudor, Nierenberg
13. Ceremonial speeches, delivering student papers (10-minute speeches) – Osborn & Osborn, Nelson
14. Delivering 3-minute speeches, analysis and evaluation of 3-minute speeches
15. Repetition and written exam

Rhetorical Argumentation

Name	Rhetorical Argumentation
Organizational unit	Department of Phonetics
ECTS credits	6
ID	215530
Semesters	Winter
Teachers	Gabrijela Kišiček, PhD, Associate Professor (primary, L, S)
Hours	Lectures 30 Seminar 30
Prerequisites	None
Goal	The aim of this course is to improve the argumentation skills of the students, expand knowledge on argumentation, and create habits and a culture of using arguments when defending standpoints in a discussion. Further on, the goal is to provide students with the basis of argumentation theory, skills to analyze and evaluate argumentative discourse. The final goal is to produce students who will be competent teachers of argumentation.
Teaching methods	Lectures – theoretical foundations of argumentation Seminars – analysis of an argumentative discourse
Assessment methods	Written exam – 50% Seminar paper – 30% Presentation and discussion on a specific topic from the field of argumentation – 10% Analysis and evaluation of an argumentative discourse – 10%

Learning outcomes

1. Detect and identify different types of arguments
2. Detect and identify different types of fallacies
3. Identify and evaluate different approaches to argumentation (rhetorical, logical, pragma-dialectical, multimodal)
4. Critically analyze the argumentation in a public discourse
5. Evaluate and assess different argumentative discourses (political, scientific, religious)
6. Create, plan and conduct courses for argumentation skills improvement
7.

Content

1. a) Domain of argumentation: definitions, different perspectives and approaches to studying argumentation, differences between rhetoric and dialectic, introduction to the most important authorities in the field of argumentation (Aristotle, Toulmin, Perelman, Wanton, Škarić, van Eemeren)
   b) Historical roots of argumentation (probability, kairos, ethos, pathos, logos)
2. a) Pragma-dialectical approach to argumentation – advantages and disadvantages
   b) Exercise – pragma-dialectical analysis of argumentation
3. a) Logical approach to argumentation (argumentation theory) – differences between enthymeme and syllogism; differences between persuasion and argumentation
   b) Informal logic approach to argumentation – RSA evaluation of an argument
4. a) Argument support (evidence and reasoning)
   b) Exercise: detecting and identifying argument types in the analysis of public speech
5. a) Argumentation of value claims
   b) Exercise: argumentation analysis of artistic discourse (film, literary, theatre critics)

6. a) Argumentation of claims about the nature of things and claims on policy proposals
   b) Exercise: argumentation analysis of political discourse (on the examples of political comments and speeches)
7. a) Argumentation of causal claims
   b) Exercise: implementation of Mills methods in the argumentation analysis
8. a) Using topoi in argumentation – introduction to the theory of topoi, different classifications of topoi through the history (from Aristotle and Progymnasmata to Vivegh, Perelman and contemporary argumentation scholars: Keinpointer, Zompetti, Wodak, Walton...)
   b) Exercise: analysis of epideictic oratory
9. a) Toulmin approach to argumentation – characteristics of his model of argument
   b) Exercise: applying Toulmin model of argument in case building
10. a) Perelman`s approach to argumentation – the importance of audience, quasi-logical arguments, and arguments based on the structure of reality
    b) Exercise: applying Perelman˙s topoi in case building and recognizing different types of topoi in an argumentative discourse
11. a) Fallacies – definitions and classifications, the theoretical basis for detecting and identifying fallacies of diversions and irrelevance (based on Tindale`s classification)
    b) Analysis of political discourse in debates and discussions
12. a)Fallacies – the theoretical basis for detecting and identifying fallacies of generalizations, ad arguments and other fallacies (based on Tindale`s classification) b) exercise in fallacies detection and identification on current public argumentative discourse
13. a) Multimodal approach to argumentation – introduction to Gilbert`s four modes of argument b) Exercise: analysis of arguments in everyday discourse (students' examples)
14. a) Multimodal approach to argumentation – introduction to visual argumentation, images as arguments, prosodic part of an argumentative discourse…opponents and proponents of the approach
    b) analysis of multimodal argumentative discourse and reconstruction of visual arguments (examples from advertising discourse)
15. Analysis of an argumentative discourse – detecting, identifying and evaluating fallacies, differences between strong and week arguments (from logical and rhetorical perspective), a final evaluation of an argumentative discourse (on the example of one public speaker)

Rhetorical genres

Name	Rhetorical genres
Organizational unit	Department of Phonetics
ECTS credits	5
ID	170378
Semesters	Summer
Teachers	Elenmari Pletikos Olof, PhD, Associate Professor (primary, S, ME)
Hours	Seminar 30 Methodology exercies 30
Prerequisites	None
Goal	The purpose of the course is to acquire knowledge about the rules of certain rhetorical genres and to master the skill of organizing and participating in a particular genre. Based on theoretical knowledge and experience, students will learn to analyze speeches, assess the speaker's mastery, and give instructions on how to improve the structure and the performance.
Teaching methods	Direct instruction, teaching through seminars and exercises, presentations, classroom discussion, e-learning (Omega)
Assessment methods	Class attendance, preliminary exam, seminar paper, practical work. During the semester the students' work is continuously monitored and evaluated: attending classes and active participation; giving three speeches; preparation for an interview, panel discussion, debate, and meeting, two tests; written seminar; presentation of a seminar. Evaluation and grading are based on continuous students' work (1/3 tests, 1/3 written seminar, 1/3 delivered speeches and participation in dialogical genres).

Learning outcomes

1. Explain the basic debate structure, the roles of the speakers, build the basic argument structure, organize a debate, and explain debate scoring
2. Give instructions for organizing and running a successful meeting
3. Explain and apply the rules of brainstorming and name some other problem-solving creativity techniques
4. Define negotiation, explain negotiation zone and the zone of possible agreement, name negotiating strategies and tactics
5. Name interview types, describe rules of conducting the interview, provide guidelines for interviewing, and identify and correct badly crafted questions
6. Provide instructions for composing and performing various types of speeches on special occasions, identifying and correcting the errors that can appear
7. Analyze and evaluate the structure and other rhetorical characteristics of public speeches in various rhetorical genres as some journalistic genres, speeches in parliament, speeches in educational institutions, and speeches of scientific and professional presentations
8. Find relevant literature and critically use the literature when writing a professional or scientific paper

Content

1. Course introduction: aim, student assignments and evaluation; introduction into rhetorical genres and rhetorical concepts; topics for seminar assignments; impromptu speech: performance and analysis. Video CV.
2. Interview: types and rules. The pitch as a rhetorical genre.
3. Panel discussion/round table; interview exercises; PechaKucha as a rhetorical genre. Seminar discussion of Bitzer's concept of the rhetorical situation.
4. Conducting and Analyzing Interviews. Seminar Discussion on Kenneth Burke's Pentadic Criticism.
5. Meetings: Goal setting, technical and content preparation, meeting facilitation styles and leadership. Brainstorming and other creative problem-solving techniques.

6. Negotiation: definitions, explaining the negotiation zone, negotiating strategies and tactics.
7. Negotiation Exercises. Midterm exam 1.
8. Speeches for special occasions: guidelines and examples of speeches for different occasions.
9. Speeches on special occasions: performance and analysis.
10. General debate structure, competitive debates, debate as a tool in the classroom, organizing a debate, debate scoring
11. Debate: performance and analysis.
12. Seminar presentations.
13. Seminar presentations.
14. Seminar presentations. Midterm exam 2.
15. Evaluation of the teacher and the course; evaluation of the individual student progress

Speech and audio technology

Name	Speech and audio technology	
Organizational unit	Department of Phonetics	
ECTS credits	5	
ID	265953	
Semesters	Summer	
Teachers	Nikolaj Lazić, PhD, Full Professor (primary, L, S, LE)	
Hours	Lectures Seminar Laboratory exercies	15 15 30
Prerequisites	None	
Goal	The aim of the course is to train students for independent professional work and research of speech and sound in general, using available computer technology. Special emphasis is placed on the use of computers in sound analysis, processing and synthesis.	
Teaching methods	Lectures, seminars, laboratory exercises	
Assessment methods	The exam is administered in two parts: practical work on the computer and oral exam	

Learning outcomes

1. Explain the process of sound recording (conversion of sound energy into electricity through microphones and amplifiers).
2. Explain the process of sound production on a computer
3. Explain the differences between digital and analog media
4. Explain the conversion of analog to digital audio signal.
5. Compare the characteristics of different media and audio storage formats.
6. 6. Apply acoustic filters to the sound signal.
7. 7. Acoustically analyze the harmonic part of speech sound and conduct a fundamental formant synthesis with the purpose of connecting the production and perception of speech
8. 8. Explain different ways of synthesizing speech on a computer

Content

1. L: Introduction to the course; analog and digital sound representation
   S: History of sound recording; analog and digitally recorded formats
   E: introduction to equipment; basics of working with a computer; introduction to the Praat program
2. L: Sound; transmission of sound through the medium
   S: Reflection and refraction of sound
   E: Generating sound on the computer; creating pure sine tone; recording and playback of sound on the computer (microphones and speakers)
3. L: Resonant frequencies; F0
   S: Nyquist frequency, equalization of different frequencies after sampling
   E: Sound processing; annotating sound segments; F0; intensity
4. L: Spectrograms; FFT
   S: Recording studio in the Department of Phonetics
   E: Spectrograms on the computer; windowing of the audio signal for FFT; sound; LTAS
5. L: Filters; analog filters; digital filters
   S: Formants; LPC
   E: Preparation of the analyzed material for presentation; drawing spectrograms; F0 and other materials on a computer

6. L: Mechanical sound recording on gramophone records
   S: Record rotation speeds and effect on the sound; Stereo
   E: Recording from a turntable to a computer
7. L: Recording on magnetic media; tapes, cassettes, DAT
   S: Differences among magnetic materials used for recording sound
   E: Analysis of the sound recorded on a computer
8. L: Recording on optical media; CD; record structure
   S: CD-text and other file standard extensions
   E: Transferring audio from a CD to a computer; analog and digital
9. L: Minidisk; basic concepts of psychoacoustics for Minidisk
   S: ATRAC and record structure
   E: Forming F0 contour line and duration contour line in Praat; PSOLA
10. L: MP3
    S: Other formats of sound recording based on psychoacoustics
    E: Convert mp3 and other formats to a format suitable for analysis in Praat
11. L: DVD
    S: DVD audio formats
    E: Extract audio from a DVD
12. L: Articulatory synthesis
    S: Globally used methods and research related to articulatory synthesis
    E: Examples of articulatory synthesis in Praat. scripts in Praat
13. L: Formant speech synthesis
    S: Vocal characteristics and parameters required for synthesis
    E: Klatt synthesizer formant synthesis
14. L: Concatenation speech synthesis; diphone speech synthesis; MBROLA
    S: Sound base repertoire for diphone synthesis; SAMPA
    E: Diphone synthesis using the Mbrola system
15. L: Artificial neural networks
    S: Artificial neural networks in sound analysis
    E: Practical work with artificial neural networks

Speech and language

Name	Speech and language	
Organizational unit	Department of Phonetics	
ECTS credits	3	
ID	265956	
Semesters	Winter	
Teachers	Jelena Vlašić Duić, PhD, Full Professor (primary, L, S)	
Hours	Lectures Seminar	30 15
Prerequisites	None	
Goal	The aim of this course is to provide relationship between phonetics and linguistics, between linguistic and speech sign and to analyze speech and language functions, explain the relationship between sounds and phonemes and sound changes.	
Teaching methods	Lectures and seminars.	
Assessment methods	Continuous evaluation, seminar assignment, colloquium, written exam.	

Learning outcomes

1. Explain the difference between linguistics and phonetics.
2. Explain the difference between speech and language and their interdependence.
3. Distinguish speech from language units.
4. Analyze speech functions.
5. Analyze the types of speech sign
6. Explain the relationship between phonemes and sounds.
7. Explain sound changes.

Content

1. L: Introduction to the course.
   S: Literature review. Seminar assignments.
2. L: Phonetics and linguistics (areas and approaches).
   S: Linguistic Phonetics.
3. L: Semiology. Definition.
   S: Linguistic and speech sign (definition, principles; motivation).
4. L: Similarities and differences between linguistic and speech sign.
   S: Types of speech signs.
5. L: Language functions.
   S: Recognition of language functions.
6. L: Speech functions.
   S: Recognition of speech functions.
7. L: Basic speech units. Basic language units.
   S: Speech layers: voice and text. Archetypal speech.
8. L: Preliminary exam.
   S: Student self-assesment.
9. L: Phoneme and sound (realizing phonemes in the Croatian standard language).
   S: Different ways of realizing phonemes.
10. L: Introduction to morphonology.
    S: Typology of sound changes.
11. L: Phonologically conditioned sound changes.
    S: Phonologically conditioned sound changes at the orthographic and orthoepic level.
12. L: Adding sounds.
    S: Sound changes in speaker pronunciation and consciousness.

13. L: Morphologically conditioned sound changes. Palatalizations. Jotation. Vowel changes.
    S: Non-implementation of sibilarization.
14. L: Ije in long syillable.
    S: Pronunciation of a contemporary Croatian ije. Analysis of morphologically conditioned sound changes in the text.
15. L: Preliminary exam.
    S: Student self-assesment and course assesment.

Speech development

Name	Speech development
Organizational unit	Department of Phonetics
ECTS credits	5
ID	51614
Semesters	Winter
Teachers	Diana Tomić, PhD, Associate Professor (primary, L, S) Nina Nodilo, M.Sc., Assistant (S)
Hours	Lectures 30 Seminar 30
Prerequisites	None
Goal	The aim of the course is to enable students to monitor and encourage typical speech development, recognize delays and potential disorders including their causes and to master the ways of overcoming them.
Teaching methods	Lectures, seminars, mixed e-learning
Assessment methods	1. Attendance – 5% of total grade 2. Two quizzes – 20% of total grade each (40% both) 3. Seminar – presentation and paper – 30% of total grade (10% for presentation and 20% for the paper) 4. Final presentation – 10% of total grade 5. Kindergarten observation notes – 5% of total grade 6. Video-test – 5% of total grade 7. Phonological processes test – 5% of total grade

Learning outcomes

1. Explain basic theories of speech and language development
2. Describe the neurophysiological foundations of speech and language development
3. Recognize and describe deviations from typical speech and language development with various causes (hearing impairment, autism, Down syndrome, phonological disorders, special language impairment)
4. Identify and describe developmental speech and language milestones for a particular age
5. Recognize and describe the peculiarities of speech-language development in particular contexts (twins or multilingual environment)

Content

1. Introduction
2. Key terminology: acquisition, learning, development, milestones; key questions and dilemmas – nature vs. nurture; relations: speech and language, thought and language; neurobiological foundations of speech and language (hemispheres, lateralization, localization, dichotomies, models)
3. Neural plasticity, critical periods; theories of speech and language development; is there a speech module in brain?
4. Interactions between cognitive and speech and language development; perceptual development; elements and processes of cognitive development and cognitive organization; J. Piaget; object permanence, causality, means-goals; types of behavior (imitation, play, communication), necessary preconditions for speech and language development; child directed speech; role of parents in speech and language development
5. Individual consultations for quiz preparation; quiz 1
6. Prenatal influences on speech development, speech development from birth to 0;6 (general behavior, development of perception and production), first cry and classification of early forms of vocalizations; speech development from 0;6 to 1;0 (general behavior, development of perception and production), speech milestones in the first year

7. Speech development from 1;0 to 2;0, characteristics of speech in the second year; speech development from 2;0 to 4;0 and from 4;0 to 7;0 (general behavior, perception, production); word classes and common mistakes
8. Speech sound development/phonological progression, phonological processes, onomatopoeias, typical phonetic development; twins and twin speech
9. Speech development in bilingual environment, bilingualism, and multilingualism Developmental speech and language disorders in general; specific disorders influencing speech and language development (hearing impairment, ADHD, autism, SLI, Down Syndrome, mental retardation, speech and language disorders)
10. Individual consultations for quiz preparation; quiz 2
11. Seminars: students' presentations
12. Seminars: students' presentations
13. Seminars: students' presentations
14. Seminars: students' presentations
15. Video-test, phonological processes test, final presentations

Speech disorders and their rehabilitation methods

Name	Speech disorders and their rehabilitation methods	
Organizational unit	Department of Phonetics	
ECTS credits	5	
ID	124275	
Semesters	Summer	
Teachers	Diana Tomić, PhD, Associate Professor (primary, L) Adinda Dulčić, PhD, Associate Professor (L, E)	
Hours	Lectures Exercies	30 30
Prerequisites	None	
Goal	The aim of the course is to provide an introduction to speech, language, reading, and writing disorders.	
Teaching methods	Lectures and seminars	
Assessment methods	Oral and written exams	

Learning outcomes

1. Define and classify speech and language disorders.
2. Contrast causes of various disorders (speech, language, voice, reading and writing) and illustrate the causes based on typical symptoms (i.e., underdeveloped speech, speech sound disorders, dysphonia, stuttering/balbuties, batharismus, dysphasia, aphasia).
3. Relate speech disorders with potential causes (i.e., hearing impairment, mental retardation, blindness, autism, bilingualism, sociocultural deprivation etc.).
4. Assess treatment approach and make recommendations for a particular speech disorder.
5. Organize rehabilitation for a particular speech disorder.

Content

1. Introduction.
2. Overview of the disorder classification following the Croatian legislature.
3. Developmental delays, difficulties, and disorders.
4. Early communication and child development.
5. Speech development.
6. Speech and language difficulties/disorders – terminology, definitions, and classification.
7. Diagnosing speech disorders.
8. Articulatory and phonological disorders.
9. Disorders of speech rhythm and tempo (balbuties and batharismus).
10. Specific language impairment.
11. Reading and writing disorders.
12. Cerebral damage and speech disorders.
13. Verbotonal method in therapy of speech disorders.
14. Speech and language disorders in autistic spectrum.
15. ADHD/ADD – developmental characteristics.

Speech exercises 1

Name	Speech exercises 1
Organizational unit	Department of Phonetics
ECTS credits	2
ID	265761
Semesters	Winter
Teachers	Elenmari Pletikos Olof, PhD, Associate Professor (primary, SE) Jelena Vlašić Duić, PhD, Full Professor (primary, SE)
Hours	Speech exercises 30
Prerequisites	None
Goal	The aim of the course is for students to practice basic phonetic skills (imitation, pronunciation precision and fluency) in order to master their speech apparatus. These exercises are the basis for the identification of Croatian standard and non-standard vowels, consonants, word prosody and intonation units.
Teaching methods	Exercises and assignments: listening tasks, imitation and explanation.
Assessment methods	Students work is monitored and evaluated continuously: attending classes, active practice in class, assignments related to exercises, short reports on the literature.

Learning outcomes

1. Self-awareness of the initial pronunciation status.
2. Demonstrate imitation exercises of intonation and rhythmic patterns of speech.
3. Demonstrate and explain exercises for diction, precision, and fluency.
4. Demonstrate and explain exercises for standard neutral pronunciation of prosodic words, vowels, and consonants.

Content

1. Introduction to the course: learning outcomes, methods, assignments.
2. Initial recording of the students and a short self-analysis.
3. Initial recording of the students and a short self-analysis.
4. Imitation of speech patterns in rhythm and intonation.
5. Imitation of speech patterns in rhythm and intonation.
6. Exercises for diction, precision and fluency.
7. Exercises for diction, precision and fluency.
8. Exercises for diction, precision and fluency.
9. Imitation and identification of standard and non-standard vowels and consonants.
10. Imitation and identification of standard and non-standard vowels and consonants.
11. Imitation and identification of standard and non-standard Croatian word prosody.
12. Imitation and identification of standard and non-standard Croatian word prosody.
13. Imitation and identification of standard and non-standard Croatian word prosody.
14. Testing learning outcomes: students demonstrate and explain exercises diction, word prosody and fluency.
15. Testing learning outcomes: students demonstrate and explain exercises diction, word prosody and fluency.

Speech perception

Name	Speech perception
Organizational unit	Department of Phonetics
ECTS credits	5
ID	265762
Semesters	Summer
Teachers	Ana Vidović Zorić, PhD, Associate Professor (primary, L, S) Arnalda Dobrić, PhD, Assistant Professor (L, S)
Hours	Lectures 30 Seminar 15
Prerequisites	None
Goal	This course is a general introduction to the cognitive and physiological mechanisms of speech perception, and anatomical basis as well. It covers areas such as multimodal perception, categorical perception, perception of prosodic features, perception of individual variations, perception in different age groups,perception in atypical cases.
Teaching methods	Lectures, seminars, presentations, classroom discussion.
Assessment methods	Class attendance, preliminary exam, seminar paper, written exam, oral exam; standard grading.

Learning outcomes

1. Define basic concepts in the perception of sound and speech.
2. Connect the acoustic and auditory parameters of speech sound.
3. Explain theories of perception of pitch and intensity in the context of physiology of auditory processing.
4. Explain theories of the development of speech perception.
5. Explain the perception of sound and speech in people with hearing impairments.

Content

1. Course introduction - organization, literature, assignments. Defining perception, the difference between perception and sensation, defining basic concepts: discrimination, identification, interpretation, methods of examining speech perception.
2. Perception of speech segments: vocals and sonorants.
3. Perception of obstruents: categorical perception.
4. Perception of prosodic features.
5. Speech perception and speech variability: different speakers, pronunciation, noise, normalization.
6. Perception of speech in a foreign language.
7. Multimodal perception in speech; McGurk effect.
8. Development of speech perception - phylogenetic and ontogenetic approach.
9. Perception of speech in different age groups: children, adults, elderly population.
10. Speech perception in people with hearing impairment.
11. Speech perception and neurological impairment: auditory agnosia, aphasia, cortical deafness.
12. Speech perception in relation to the perception of non-speech sounds: evidence based on duplex perception, compensation for co-articulation, dichotic listening, categorical perception.
13. The relationship between speech perception and production; motor theory of speech perception.
14. Other theories and models of speech perception: analysis by synthesis, auditory theory, neural feature detectors, theory of acoustic invariance, the cohort theory, trace model.
15. Concluding remarks.

Speech production research

Name	Speech production research	
Organizational unit	Department of Phonetics	
ECTS credits	5	
ID	117514	
Semesters	Winter	
Teachers	Marko Liker, PhD, Full Professor (primary, L, S, SE) Veno Volenec, PhD, Associate Professor (L, S, SE)	
Hours	Lectures Seminar Speech exercises	15 30 15
Prerequisites	None	
Goal	The aim of this course is to introduce instrumental kinematic techniques to phonetic research, to explain and demonstrate the procedures, and assess their application. Students devise and execute their own pilot study through a series of supervised seminar assignments.	
Teaching methods	Lectures, seminars, and exercises	
Assessment methods	Seminar research project, written and oral exam	

Learning outcomes

1. Explain the procedures behind instrumental kinematic techniques
2. Assess the application of instrumental kinematic techniques
3. Plan speech production research using instrumental kinematic techniques
4. Apply one of the instrumental kinematic techniques in investigating a relevant research problem
5. Critically assess the results obtained via a pilot study in the context of a relevant research context
6. Argue the application of instrumental kinematic techniques in the phonetic sciences

Content

1. Course introduction: aim, responsibilities, and evaluation
2. Instrumental kinematic techniques 1
3. Instrumental kinematic techniques 2
4. Instrumental kinematic techniques 3
5. Pilot: research question, hypothesis, and research plan
6. Data acquisition (data recording or database choice)
7. Data preparation (annotation)
8. Data preparation (annotation)
9. Data preparation (annotation)
10. Data analysis (data reduction)
11. Data analysis (data reduction)
12. Data analysis (statistical analysis and visualization)
13. Data analysis (statistical analysis and visualization)
14. Discussion about research conclusions
15. Research project presentations

Speech prosody

Name	Speech prosody
Organizational unit	Department of Phonetics
ECTS credits	5
ID	266030
Semesters	Winter, summer
Teachers	Elenmari Pletikos Olof, PhD, Associate Professor (primary, L, SE)
Hours	Lectures 45 Speech exercises 15
Prerequisites	None
Goal	The aim of the course is to analyze different prosodic features of speech and to connect them with acoustic parameters. The functions of prosody, individual prosodic units, and basic phonetic and phonological terms are analyzed in order to describe word prosody and sentences prosody in Croatian and in other language systems.
Teaching methods	lectures and exercises
Assessment methods	continuous monitoring, written and oral exam

Learning outcomes

1. Define prosodic features.
2. Explain the linguistic and paralinguistics functions of prosody.
3. Explain the influence of basic sound characteristics on the perception of suprasegmental elements.
4. Describe the intonation patterns of the Croatian language.
5. Apply phonetic transcription in marking prosody.
6. Classify languages according to the system of word prosody into tone, pitch and stress accent languages.
7. Explain the interaction between lexical tone and sentence intonation in Croatian.
8. Analyze basic prosodic features and interpret them in different languages.

Content

1. Introduction to the course: learning outcomes, methods, assignments.
2. Lecture: Prosodic features and their acoustic correlates. Linguistic and paralinguistic role of prosodic features. Exercises: Perception of paralinguistic prosody.
3. Lecture: Perception of physical, physiological and other characteristics of the speaker based on prosodic features. Exercises: Analyzing the pitch in sound examples.
4. Lecture: Prosody and emotions. Exercises: Perception of emotions based on prosodic features.
5. Lecture: Universal intonation patterns and specific intonation patterns in Croatian. Exercises: Analysis of intonation units and nuclei in the Croatian.
6. Lecture: Intonation nuclei. Exercises: Analysis of intonation units and nuclei in the Croatian.
7. Lecture: Rhythm. Exercises: Analysis of rhythmic patterns in speech.
8. Lecture: Focus, speech pauses and tempo. Exercises: Analysis of pauses in speech.
9. Lecture: written exam 2. Exercises: Analysis of spectral shape and timbre perception.
10. Lecture: Timbre and spectrum. Exercises: Analysis of spectral shape and timbre perception.
11. Lecture: Word prosody in tone, pitch and stress accent languages. Exercises: Acoustic analysis of word prosody in tone, pitch and stress accent languages.
12. Lecture: Prosodic features of Croatian accents in the standard pitch accent system and in the Croatian varieties with the stress accent system. Exercises: Acoustic analysis of f0 in prosodic words.
13. Lecture: Interaction of lexical tone and sentence intonation. Exercises: Acoustic and perceptual analysis of Croatian accents in intonation.
14. Lecture: Prosody in language acquisition and teaching. Exercises: Recognizing language based on prosodic features.

15. Lecture: Written exam 2. Exercises: Evaluation of the teacher and the course. Evaluation of the individual student progress.

Statistics

Name	Statistics
Organizational unit	Department of Phonetics
ECTS credits	5
ID	117516
Semesters	Winter
Teachers	Mirjana Tonković, PhD, Full Professor (primary, L, E) Una Mikac, PhD, Assistant Professor (L, E)
Hours	Lectures 30 Exercies 30
Prerequisites	None
Goal	The aim of the course is to enable students: to explain the basic logic of statistical approach in social sciences in general and in phonetics in particular; to choose and use appropriate descriptive and inferential statistical methods in the process of statistical data analysis; to choose an appropriate statistical method of testing differences between two or more samples; to choose an appropriate measure of the correlation between variables; to interpret results of statistical analyses; to recognize assumptions for different statistical tests depending on the type of data.
Teaching methods	Lectures and exercises.
Assessment methods	Grades from two mid-term exams and the final exam are combined into a final grade. The final exam is a written exam, oral exam is optional.

Learning outcomes

1. Describe main characteristics of the statistical approach in science.
2. Choose and calculate an appropriate measure of central tendency from a data set.
3. Calculate an appropriate measure of data variability.
4. Transform results to z-scores.
5. Explain the logic of the null-hypothesis testing.
6. Calculate t-test and one-way analysis of variance and interpret obtained results.
7. Choose an appropriate chi-square test to test the significance of differences between distributions and interpret obtained results.
8. Choose an appropriate measure of the correlation between two variables, calculate it and interpret the obtained result.
9. Choose an appropriate non-parametric statistical test to test null-hypothesis.

Content

1. Introduction to statistics.
2. Data distribution and normal distribution model.
3. Measures of central tendency; mean, median, mode .
4. Measures of variability: standard deviation, interquartile range, range, variance-to-mean ratio.
5. z-scores.
6. Sample and population; estimation of population parameters
7. First exam.
8. Null-hypothesis testing. Testing the difference between two means (independent samples t-test, paired-samples t-test).
9. One-way analysis of variance for independent samples.
10. Effect size and statistical power of a test.
11. Testing the difference between observed frequency distribution and expected frequency distribution (chi-square test).
12. Logic and meaning of correlation. Correlation coefficients: Spearman's rho, Pearson’s r, contingency coefficient; partial correlation.

13. Second exam.
14. Most commonly used non-parametric tests.
15. Review for final exam

Teachers

Aras, Ivana

Academic degree doctor of philosophy

Title

Organizational unit Department of Phonetics, Department of Phonetics

CV

She was born on 20 July 1970 in Šibenik, where she completed primary and secondary school, as well as a secondary music school, majoring in piano. She graduated from the Faculty of Medicine at the University of Zagreb in 1994, and at the end of her studies, she completed an international course in NLP (Neuro-Linguistic Programming) organised by the School of Public Health "Andrija Štampar", earning the title of Therapist/Trainer, and later Master Practitioner. In 1997, she began her specialisation in otorhinolaryngology at KB "Sestre milosrdnice" for the SUVAG Polyclinic, and passed the specialist exam in 2001. During her specialisation, she attended a professional postgraduate study in ORL and cervicofacial surgery, followed by a scientific postgraduate study in "Biomedicine and Health". She passed the subspecialist exam in phoniatrics in 2006, and in the same year, she attended and passed exams in the postgraduate study "Health Management". After subspecialising in phoniatrics and acquiring the necessary equipment, the phoniatrics clinic at the SUVAG Polyclinic started operating. She defended her doctoral dissertation in 2014, and in 2016, she earned the title of scientific associate at the Faculty of Medicine, University of Rijeka. In the same year, she also became a subspecialist in audiology.
Since 2007, she has been the head of the Department of Medical Diagnostics and Functional Hearing Rehabilitation at the SUVAG Polyclinic. She has participated as a lecturer in postgraduate teaching at the Faculty of Medicine, continuous education courses, Verbotonal seminars and courses organised by the SUVAG Polyclinic, as well as numerous domestic and international professional and scientific conferences. She is the author and co-author of several scientific papers published in international indexed journals in the fields of otorhinolaryngology, public health, audiology, and phoniatrics, and a co-author of a chapter in the book "Cleft Lip and Palate" (with Ana Zorić and Predrag Knežević).
She is a member of the European Phoniatric Society, this year became the president of the Croatian Verbotonal Association, and the secretary of the Croatian Society for Audiology and Phoniatrics. She actively speaks and writes in English and Italian and is also proficient in German, French, and Portuguese.

Bašić, Iva

Academic degree doctor of philosophy

Title assistant professor

Organizational unit Department of Phonetics, Department of Phonetics,

CV

Iva Bašić is an Assistant Professor at the Department of Phonetics, Faculty of Humanities and Social Sciences, University of Zagreb. Born in 1988 in Zagreb, she completed her primary and secondary education there. She completed her undergraduate studies in phonetics and general linguistics at the Faculty of Humanities and Social Sciences, University of Zagreb in 2009, followed by her graduate studies in 2011. During her studies, she received the Rector's Award and a scholarship from the City of Zagreb. From 2012 to 2019, she worked as a research assistant at the Department of Phonetics and pursued her doctoral studies in linguistics at the University of Zagreb. She earned her Ph.D. in acoustic phonetics in December 2018.

In July 2019, she was appointed as a postdoctoral researcher, and in May 2023, she was appointed as an Assistant Professor at the Department of Phonetics, Faculty of Humanities and Social Sciences, University of Zagreb. She teaches courses including Orthophony, Croatian Orthoepy I, Methodology of Phonetic Voice and Pronunciation Care, Public Speaking, Forensic Phonetics, and Nonverbal Communication in the phonetics program. In the clinical linguistics and phonetics program, she teaches courses such as Voice and Phonation, Prevention of language-speech difficulties and improvement of quality of life, and Breathing, Voice, and Pronunciation Exercises.

In 2014, she underwent professional training at the forensic phonetics laboratory of JP French Associates in York, UK, and at the University of York's forensic laboratory in the Department of Linguistics. She participated in workshops and professional training in Forensic Linguistics and Speaker Identification and Verification (SIVE). Since 2018, she has been a forensic phonetic court expert. She has participated in over 30 international conferences, delivered more than 10 invited lectures, and published around 20 original scientific and professional papers in the fields of forensic phonetics, Croatian orthoepy, and clinical phonetics.

Bićanić, Jordan

Academic degree

Title

Organizational unit Department of Phonetics, Department of Phonetics

CV

Carović, Ines

Academic degree doctor of philosophy

Title associate professor

Organizational unit Department of Phonetics, Department of Phonetics,

CV

Ines Carović was born on April 19th, 1983 in Čakovec, Croatia. She finished her primary school in Mala Subotica and general grammar school in Čakovec. In 2001 she started her further education at the Faculty of Humanities and Social Sciences, University of Zagreb and in 2007 she earned the university degrees of MA in Phonetics and Croatian language and literature. Her master thesis was Homonims in Croatian language: the most common pairs and series. She was employed as a research assistant at the Department of Phonetics at the Faculty of Humanities and Social Sciences in Zagreb, in 2008. She teaches several courses for B.A. and M.A. students (Articulatory phonetics, Language learning and Phonetic transcription, Neurophonetics, Rhetoric for teachers). In 2008 she also started her Postgraduate Doctoral study of Linguistics (Phonetics). In 2014 she defended doctoral thesis Ultrasound study of articulation and coarticulation of Croatian vowel system. She participated in projects: Produkcija i percepcija govora, Hrvatski opisni okvir referentne razine B1 and Jednosvezačni normativni rječnik hrvatskog jezika at Institute of Croatian Language and Linguistics. She is a team member of project Coarticulation in Croatian speech: instrumental investigation (CROCO). She received Award for excellence in teaching at Faculty of Humanities and Social Sciences, silver medal at ARCA 2022 (20th edition of the International Exhibition of Inventions), the Best Science Photo Award by Croatian Science Foundation, the Award of Croatian applied linguistics society (best oral presentation of young researchers, Award of Fundation „Zlata Bartl“, Award “Najstudent Međimurja” (for the best student of Međimurje), Rector’s Award, Dean’s Award „Franjo Marković“ and Scholarship of Croatian Ministry of science, education and sport. In 2019 she became an Assistant Professor at the Department of Phonetics. She is a member of Croatian Philological Society, University of Zagreb, Croatian applied linguistics society and International Phonetic Association. She has participated in more than 20 international conferences. Also, she published 20 original papers and reviews. Ines Carović participated as an instructor and speech coach in theatre, television and on many different workshops for variety of speech professionals and nonprofessionals.

Dobrić, Arnalda

Academic degree doctor of philosophy

Title assistant professor

Organizational unit Department of Phonetics, Department of Phonetics,

CV

Arnalda Dobrić was born in Zagreb where she completed her elementary and high school education. She graduated from the Faculty of Humanities and Social Sciences, Universtity of Zagreb (English Language and Literature; Phonetics) in 1999 where she completed additional free studies of Portuguese Language and Literature in 2010 and received her Ph.D. in Lingusitcs (subfield: Phonetics) in 2011. She completed two seminars of the Verbotonal method, the first level seminar in SUVAG, Zagreb, and the second level seminar in Aliance Française, Padua, Italy. Furthermore, she obtained two scholarships from the Camões Institute (Portugal) that were realized at the University of Lisbon (Faculdade de Letras) and the University of Minho (Braga, CEHUM) and obtained the interantional DUPLE (C2 level diploma of Portuguese language) in 2015. She has collaborated on five scientific projects. Her scientific research and interest areas are: hearing perception, hearing pathology, memory, bilingualism, mulitlingalism, speech and hearing rehabilitation, speech and movement, animal communication, therapeutic animals in speech and hearing rehabilitaiton. She regularly attends scientific conferences and publishes scientific papers.

Dulčić, Adinda

Academic degree doctor of philosophy

Title associate professor

Organizational unit Department of Phonetics, Department of Phonetics

CV

Adinda Dulčić graduated from the University of Zagreb, Faculty of education and rehabilitation sciences (speech pathology). She received her Master's degree in child and adolescent psychiatry from the Medical faculty in Zagreb and earned her Ph.D. from the Faculty of education and rehabilitation sciences, Zagreb. She has been working at the SUVAG Polyclinic for rehabilitation of hearing and/or speech since 1974. From 2000 till 2004 she was the head of the State institute for protection of family, maternity and youth. Since 2004 she has been assistant of the head at the SUVAG Polyclinic and from 2006 till 2018 she has been the head of the SUVAG Polyclinic. She is an active member in organization and teaching at the Verbotonal seminars and specialistic courses whose purpose is education of verbotonal specialists.
Dulčić´s main research interests are children and youth with hearing and/or speech impairment, Verbotonal method in diagnostics and rehabilitation of hearing and/or speech impairment, educational integration and social and professional integration of persons with special needs. She is the author of numerous expert and scientific articles and books. She was chief editor of many publications and a member of organizational and programme comities of numerous domestic and international scientific congresses.
Professor Dulčić has taught courses in all of the mentioned areas at different levels - undergraduate, graduate, and postgraduate, at the Faculty of education and rehabilitation sciences in Zagreb, Faculty of humanities and social sciences in Zagreb, Department of phonetics, The University Centre for Croatian studies, Department of psychology and Department of Educational Sciences and Teacher Education.

Horga, Damir

Academic degree doctor of philosophy

Title prof.

Organizational unit Department of Phonetics, Department of Phonetics

CV

Professor emeritus Damir Horga was born in Zagreb in 1938. At the Faculty of Humanities and Social Sciencies at Zagreb University he graduated in English language and literature and Russian language and literature in 1967. He got his master's degree in phonetics in 1974. and doctor's degree in phonetics in 1987. He was teaching Russian language (1963-1965) at The School for Interpreters at the Facullte Politechnique in Mons (Belgium). After that at the Faculty of Humanities and Social Sciencies at Zagreb University he was assistent at the Institute of Phonetics (1966-1979), and then at the Department of Phonetics assistent (1979-1986), docent (1988-1989), assistent professor (1989-1996), ordinary professor (1996-2001) and permanent ordinary professor from 2001. until his retirement in 2009. In 2012. he was honoured as professor emeritus at Zagreb University. At the Department of Phonetics he taught Articulatory Phonetics, General Phonetics, Foreign language teaching, Neurophonetics, Phonetic transcription and Measurement of Speech Abilities. He also taught phonetics at the Faculty of Education and Rehabilitation Sciencies and at Faculty of Medicine at Zagreb University and at postgraduate study of linguistics, language teaching and phoniatry. He was teaching Methodology courses in Audiovisual Global and Structural method of teaching foreign languages and verbotonal method of rehabilitation of speech and hearing in Coatia, Ex-Yugoslavia, Hungary, Italy, Belgium. He also participated as a teacher at School of Rhetorics Ivo Škarić. He was reshearcher in Croatian and international scientific projects and the maim researcher in some of them sponsored by the Croatian Ministry of Sciencies: The methodology of research of professional language in university education, Pragmatics of natural languages, Articulatory and neurolinguistics description of speech production and Production and perception of speech. He is the author of scientific books Processing of the phonetic information and Articulatory phonetics (Marko Liker was co-author in the second one). He published about hundred scientific articles and certain number of professional papers and textbooks for high school and university teaching of foreign languages. He was the author of educational programs of Radio Zagreb. He participated at numerous scientific and professional congresses and conferences in phonetics, psycholinguistics and applied linguistics in the country and abroad in the field of phonetics, psycholinguistics and applied linguistics. He lectured at the Universities of Ljubljana (Slovenia), Torunj and Washovi (Poland), Moscow (Russia). He was guest at universities in Peterburg, Moskow and Los Angeles.
He is the member of Croatian and international professional and scientific associations (Croatian philological association, Croatian association for applied linguistics, International phonetic association, International society for phonetics, Commission for phonetics and phonology of Slavic languages). He was the president of the Croatian association for applied linguistics (1987-1989), president of the Phonetic section of the Croatian philological association (1994-2002), editor in chief of the journals Strani jezici (1992-1994) and Govor (2003-2011).
In 2009. he was rewarded by the Charter of the Faculty of Humanities and Social Sciencies and in 2016. he got the annual reward of the Faculty for scientific book.

Judaš, Miloš

Academic degree doctor of philosophy

Title full professor

Organizational unit Department of Phonetics, Department of Phonetics

CV

Miloš Judaš, born in 1961 in Petrinja, Republic of Croatia, completed the Classical Gymnasium and the Faculty of Medicine at the University of Zagreb (1984). He has been employed at the University since 1985, currently holding the position of Full Professor with tenure for the subjects Neuroscience and Anatomy. He is also the Director of the Croatian Institute for Brain Research and the Head of the Scientific Centre of Excellence for Basic, Clinical, and Translational Neuroscience. Since 2008, he has been an associate member of the Class of Medical Sciences at the Croatian Academy of Sciences and Arts (HAZU).
At the Faculty of Medicine, University of Zagreb, he served as Vice Dean for Science for five terms (1998-2000; 2005-2014), Chairman of the Doctoral Theses Committee (2005-2014), and a member of numerous other faculty committees and boards. At the University of Zagreb, he was a member of the Editorial Board for University Publications (2000-2003), a member of the Council of the Field of Biomedicine and Health (2005-2014), a member of the Office for Projects (2007-2012), Chairman of the Committee for the Rector's Awards (2007-2014), and a member of the Senate (2009-2014).
He is a member of the governing and organisational bodies of leading European and global organisations in the field of neuroscience, including the International Brain Research Organization (IBRO) – Central and Eastern European Regional Committee (1999-2012); member of the IBRO Pan-European Regional Committee (2012-2017); member of the Federation of European Neuroscience Societies (FENS) Council (2012-present); and member of the IBRO Council (2012-present). In January 2014, he served as Chair of the panel for the evaluation of 27 competitive projects within the EU Flagship project "Human Brain Project".
Source: University of Zagreb

Kišiček, Gabrijela

Academic degree doctor of philosophy

Title associate professor

Organizational unit Department of Phonetics, Department of Phonetics,

CV

Gabrijela Kišiček, PhD is an Associate Professor at the Department of Phonetics. She was born in 1977 in Varaždin where she finished elementary and high school. In 2004 she graduated at the Faculty of Humanities and Social Sciences at the Department of Phonetics and Department of Slavic languages and literature. The same year she started her postgraduate studies in linguistics. From 2008 she works at the Department of Phonetics, first as a Research assistant, then Senior research assistant and in 2018 she becomes an Assistant professor. In 2008 she defended the qualification thesis Comparison between female and male rhetoric under the supervision of professor emeritus Ivo Škarić. In 2012 she defended doctoral thesis Forensic profiling and speaker identification of Croatia urban varieties.

During the years Gabrijela Kišiček participated at several courses at the Department of Phonetics: Orthoepy of Croatian language, Nonverbal communication, Rhetoric, Argumentation, History of Rhetoric, Rhetoric for teachers but also at different faculties at the University: Culture of public speaking at the Faculty of Kinesiology, Communication skills at the Faculty of Agriculture, Communication skills for teachers at the Faculty of Natural Sciences. Currently she teaches Argumentation and History of Rhetoric at the graduate studies of Rhetoric, Workshop for doctoral students at the Postgraduate studies of Croatian culture at the Faculty of Humanities and Social Sciences, Rhetoric at the Catholic faculty of Theology in Đakovo, Communication skills at the Faculty of Agriculture.

Gabrijela Kišiček cooperates with London School of Public relations where she teaches courses: Rhetoric and Society, Media relations and Internal communication.

She participated on numerous international conferences on Argumentation, Rhetoric, Public Speaking (more than 30) and she published more than 30 papers relating to the same topic in domestic and international journals and books. She supervised more than 20 Master's thesis. She is a co-author of the book Rhetoric and Society and author of the book Rhetoric and Politics. She is a member of Scientific panel of biannual European Conference on Argumentation and member of Board of Directors of Association for Informal Logic and Critical Thinking. She is, also a member of Rhetoric Society of Europe and a member of Editorial Board of Windsor Study in Argumentation publications.

In 2013. she was an invited speaker on the Summer Institute on Argumentation at the University of Windsor in Canada.

Gabrijela Kišiček was a president of Organization committee of the 1st International conference on Rhetoric: Days of Ivo Škarić in Croatia. From 2012 until 2016 she was a president of Phonetic section of Croatian Philological Association.

Besides courses at the University, Gabrijela Kišiček participated as an instructor and lecturer on many different workshops for wide variety of professionals cooperating with many institutions: public speaking workshops for teachers (in cooperation with an Agency for education), trainings for military members (Ministry of defense of Republic of Croatia), workshops for translators (Croatian association for translators), lectures for medical doctors in politics (Academy for politics and medicine), lecture for public relations experts (Croatian Association for Public Relations) etc.

She was project leader of Rhetorical skills of University lecturers (project sponsored by University of Zagreb) and she is currently Management committee member and a Training School coordinator on the international COST project: APPLY: European Network for Argumentation and Public Policy Analysis.

Gabrijela Kišiček collaborates with commercial television Nova TV where she works as a commentator and speech coach.

Kovačić, Damir

Academic degree	doctor of philosophy
Title	associate professor
Organizational unit	Department of Phonetics, Department of Phonetics

CV

Assistant Prof. Damir Kovačić, B.Sc., PhD, with diploma in physics and PhD in cognitive neuroscience is head of the Biophysics and Neuroelectronics Lab at Department of Physics, University of Split. Former Marie-Curie Intra-European Fellow at KU Leuven (Belgium). He is author of 17 peer-reviewed papers, including papers in PNAS, Scientific Reports, Journal of Neuroscience, Journal of Neural Engineering, JARO, Ear and Hearing and the Journal of Acoustical Society of America.
He works in auditory neurosciences, including cochlear implants (signal processing, clinical fittings), neuroimaging (optical topography, near-infrared spectroscopy, EEG & evoked potentials) and auditory neurophysiology (high dense single cell extracellular electrophysiology). Recently, he developed high-density neuroelectronic interface for neurophysiological studies of in vitro neuronal cultures and is developing graphene-based neuroelectronic interfaces. He also works on speech perception in cochlear implant users with emphasis on sound processing strategies.

Lakuš Ivanček, Maja

Academic degree	
Title	lecturer
Organizational unit	Department of Phonetics, Department of Phonetics
CV	

Liker, Marko

Academic degree doctor of philosophy

Title full professor

Organizational unit Department of Phonetics, Department of Phonetics,

CV

Marko Liker is an associate professor at the Department of Phonetics. He earned his doctoral degree in 2009 by defending the PhD thesis on the use of electropalatography (EPG) in the analysis of Croatian sounds. He has been working at the Department of Phonetics since 2001, teaching at undergraduate, graduate and postgraduate levels. He also taught phonetics at the Undergraduate Study of Speech and Language Pathology at the Faculty of Education and Rehabilitation Sciences. His research interests are in the fields of articulatory and coarticulatory processes, biomechanical and language-specific aspects of speech production and in the application of instrumental techniques at the phonetics-phonology interface, in sociophonetics and in clinical phonetics. In 2005 he was on scholarship at Queen Margaret University College in Edinburgh and from 2008 until 2009 he worked as a Marie Curie short-term fellow at Edinburgh University and Queen Margaret University in Edinburgh. For his work Marko received several awards. Apart from publishing research papers in peer-reviewed journals, he published a book Articulatory phonetics: anatomy and physiology of speech in co-authorship with Damir Horga.

Mildner, Vesna

Academic degree doctor of philosophy

Title prof.

Organizational unit Department of Phonetics, Department of Phonetics

CV

Vesna Mildner, Ph.D. is tenured professor and Chair of applied phonetics at the Department of Phonetics, Faculty of Humanities and Social Sciences, University of Zagreb. Her research and teaching activities focus on speech acquisition, bilingualism, neurolinguistics, speech perception, auditory impairments and phonetic correction. Dr. Mildner has participated in Croatian and international research projects, and does joint research with colleagues from Australia, Canada, Norway, UK and USA. She was principal investigator on the project Neurolinguistic aspect of bilingualism (2002–2014) and is currently involved in two projects: Coarticulation in Croatian speech: instrumental investigation (CROCO) (Croatian Science Foundation) and Challenges in social sciences and humanities: new study programs and quality at the Faculty of Humanities and Social Sciences Zagreb (European Social Fund). Her publications include 2 books, about 80 book chapters and journal articles, some 40 abstracts and a number of book reviews and editorials. She (co)edited several books and proceedings, served as editor-in-chief in journals Govor (2010–2015) and Strani jezici (2000–2004) and is currently on the editorial board of several Croatian journals and an international one. Dr. Mildner is regularly asked to peer-review books and articles for Croatian and international publishers. She presented some 30 invited talks in Croatia, Austria, Brazil, Canada, China, France, Hungary, Germany, Italy and Slovenia and had some 70 papers at Croatian and international conferences; organized and/or served on organizing and program committees of about 40 conferences. Her teaching activities include supervision of 6 doctoral dissertations and about 100 B.A./M.Ed. theses, as well as award-winning student projects. Dr. Mildner is a member of numerous national and international associations and president of the International Clinical Phonetics and Linguistics Association. During her career at the Faculty of Humanities and Social Sciences dr. Mildner had several executive and administrative functions (Head of Phonetics department, Faculty vice-dean, member of Faculty council). She is currently serving as member of the Editorial council of FFpress – publishing division of the Faculty of Humanities and Social Sciences and member of two research ethical committees.

Munivrana Dervišbegović, Boška

Academic degree	doctor of philosophy
Title	assistant professor
Organizational unit	Department of Phonetics, Department of Phonetics

CV

Assistant Professor Boška Munivrana Dervišbegović, PhD, was born on November 1st, 1968 in Sinj, where she completed her primary education. She graduated from the high school of mathematics and informatics in Split. After the completion of high school education, she proceeded to graduate from the Faculty of Philosophy, University of Zagreb in 1994 and obtained the professional title of graduate phonetician and general linguist. In 2012, she completed an interdisciplinary scientific postgraduate study program Language and Cognitive Neuroscience (JEKON) and defended her doctoral dissertation entitled Auditory Cognitive Evoked Potentials (CAEP) in children with cochlear implant, which earned her a doctorate in the interdisciplinary field of science, the cognitive sciences.

Since 1994, she has been employed at the SUVAG Polyclinic, at Department for Medical Rehabilitation of Listening and Speech of School-Age Children as audiorehabilitator. She is a lecturer at Verbotonal seminars organized by the Suvag Polyclinic in Croatia and abroad. She holds invited lectures at the Department of General Linguistics of the Faculty of Philosophy in Zagreb, as well as giving public lectures at the Zagreb Linguistic Circle and at the Department of Phonetics of the Croatian Philological Society. She worked as an external collaborator on the Voice CI project, conducted psychoacoustic measurements of speech perception of users of the cochlear implant type Cochlear (the leader was Assistant Professor Damir Kovačić, PhD, from the Faculty of Science in Split).

Boška Munivrana Dervišbegović was a member of the working group for the re-accreditation of the Suvag Polyclinic as a scientific organization, as well as a member of the Expert Council of the Suvag Polyclinic, the President of the Workers' Council and a member of the Management Board of the Suvag Polyclinic. Also, she was a member of the Presidency of the the Croatian Philological Society (HFD), the Department of Phonetics. Now, she is a member of the Presidency of the Croatian Professional Association of Phoneticians, a member of the Croatian Society for Neuroscience and a member of the Christian Academic Circle. She is also a member of the Croatian Society for Audiology and Phoniatrics, the Croatian Society for Applied Linguistics, a member of the International Clinical Phonetics and Linguistics Association, a member of the International Phonetic Association and a member of the International Verbotonal Association.

Nodilo, Nina

Academic degree master of science

Title assistant

Organizational unit Department of Phonetics, Department of Phonetics, ,

CV

Nina Nodilo was born in Dubrovnik in 1998. She attended primary school in Orašac and classical gymnasium in Dubrovnik. In 2016, she enrolled in phonetics and Croatian studies at the Faculty of Humanities and Social Sciences, University of Zagreb. At the Department of Phonetics, she worked as a demonstrator in the courses Articulatory Phonetics, Acoustic Phonetics, and Phonetic Transcription. During her student days, she was also an active member of the Phonetics Students' Club "Eufonija."

She graduated in 2023, and with the thesis "Tongue Pivoting in Croatian Cochlear Implant Users," which was published in the journal "Govor" in 2024 in co-authorship with Professor Marko Liker, PhD, she participated in the project "Coarticulation in Croatian Speech: Instrumental Research."

In June 2022 and 2024, she presented her research "Describing Voice in the Croatian Language" and "Acoustic-Perceptual Comparison of the Croatian Standard Jat and the Sequence [je]" at the international scientific conferences of the HDPL. In April 2024, she attended the course "Verbotonal Seminar Part I: Basics of the Verbotonal System Theory" at the SUVAG polyclinic with the intention of furthering her education in the field of rehabilitation of hearing and listening.

After working as a media phonetician at HRT for a year, she continues her phonetics trajectory at the Department of Phonetics, taking a job as an assistant in July 2025.

Petković Liker, Marina

Academic degree	doctor of arts
Title	associate professor
Organizational unit	Department of Phonetics, Department of Phonetics

CV

MARINA PETKOVIĆ LIKER is a theater author, director, phonetician and comparatist of literature. She is involved in artistic and scientific research in the field of theater, the feminine principle within theory and practice, voice and speech, performance pedagogy. She is an associate professor at the Department of Acting at the Academy of Dramatic Arts and an external associate at the Faculty of Teacher education Unifersity of Zagreb for graduate studies and postgraduate specialist university study programme Theatre Pedagogy. She directed more than 30 plays. She participated in professional, scientific and artistic conferences, published several research papers in arts and science. She leads workshops (voice and body, speech, author's theater and specific theatrical communication) with different groups (artists, amateurs, teachers, students, teenagers and children).

Pletikos Olof, Elenmari

Academic degree doctor of philosophy

Title associate professor

Organizational unit Department of Phonetics, Department of Phonetics, ,

CV

Elenmari Pletikos Olof, Ph.D. is an associate professor at the Department of Phonetics.

She was born 1974 in Pula, where she attended primary school and grammar school. She got her MA in Phonetics and German Language and Literature in 1999 at the Faculty of Humanities and Social Sciences, University of Zagreb with the thesis "Distinguishing of palatal sounds č and ć in Croatian speech". At the same faculty she got her PhD in Phonetics in 2008 with the Thesis „Acoustic description of word prosody in Croatian". During her MA and PhD studies she got a few grants for study abroad: in 1995/96 the Austrian grant CEEPUS A-5 for one semester study of German Language and Literature at University of Salzburg, in 2002/03 the German Research and Study Grant DAAD for two semesters at the Institute for Natural Language Processing (IMS) at University of Stuttgart, and in 2007/08 the JFDP – Junior Faculty Development Program, one semester program for university instructors in the field of Linguistics at University of Iowa, Iowa City, Iowa, USA.

From 2000 to 2009 she worked as Instructor and Junior Researcher and from 2009 until present she is Assistant Professor at the Department of Phonetics at Faculty of Humanities and Social Science, University of Zagreb. She teaches courses in phonetics and rhetoric: General Phonetics, Psychoacoustics and Rhetoric genres. She worked for three years at Croatian Television as phonetician in the Service for language and speech with journalists and TV anchors. As a lecturer she worked at the School of Rhetoric Ivo Škarić, teaching rhetoric to high school students at about 20 seminars.

For scientific research she participated in three projects funded by Croatian Ministry of Science, Education and Sports where principal investigator was Ivo Škarić: Croatian standard word prosody (1996-2002), Research into Croatian received pronunciation (2002-2005) and Free and Conditioned Pronunciation Changes of the Linguistic Elements in General (2007-2009). She participated in three international projects: GraLis, Differences between Bosnian, Croatian and Serbian language and speech (2007-2009), Croatian and Slovenian language contact (2005-2009), and Challenges of applying new teaching techniques in South East European Universities (2008-2009). She has actively participated at various domestic and international conferences and she has published, individually or in collaboration with other authors, over 30 papers in domestic and international proceedings and journals.

She is a member of Croatian Philological Association, Croatian Applied Linguistics Society, Croatian Reading Association and a member of the editorial board in Journal for phonetics Govor/Speech.

Runjić, Nadja

Academic degree doctor of philosophy

Title

Organizational unit Department of Phonetics, Department of Phonetics

CV

At the University Hospital «Sisters of charity» (Zagreb) she got her specialization in neurology (1995-2000). From 1998 to 1999 she finished postgraduade course in Clinical neurology, at the Faculty of Medicine (University of Zagreb). She got her Ph.D. degree with the thesis: Functional diagnostics of presbyacusis, at the Faculty of Medicine, University of Zagreb (2000). Her previous employment includes University Hospital «Dr.Mladen Stojanović» in Zagreb (1990-1991), she was junior researcher on project «Presbyacusis: rehabilitation and adaptation of thelephone channel» (1991-1997), got felowship in neurology for SUVAG Polyclinic, in: Department of Neurology, University Hospital «Sisters of charity», Zagreb (1995-2000). Also, she was a researcher on project «Polysensorics of hearing: hearing impairment and speech communication of hearing imapired persons» (1997-2002). She was principal investigator on project Verbotonal method i cochlear implant (2002-2006), on project Verbotonal diagnostic program for hearing and speech impaired children (2007-2013). She works as lecturer (Spacioception in hearing and speech), at the Faculty of Humanities and social sciences, at the Department of Phonetics (University of Zagreb), since school year 1997/98. She was working as principal investigator of project for young researchers «Program of functional diagnostics and rehabilitation of the persons with presbyacusis), from 1998-2002. She is working as neurologist in Diagnostic Department, at SUVAG Polyclinic (since 2000), she is president of Scientific Board of SUVAG Polyclinic since 2007, ISO 9001 standard internal auditor (since 2015) and assistant director of SUVAG Polyclinic (since 2017). She is member of Croatian Medical Association, Croatian Society for Ultrasound in Medicine, Croatian Society of Neurology, Croatian Society of Neuroscience and Croatian and International Verbotonal Society.

Šušković, Davor

Academic degree	doctor of philosophy
Title	
Organizational unit	Department of Phonetics, Department of Phonetics
CV	

Šušković, Ivana

Academic degree

Title

Organizational unit Department of Phonetics, Department of Phonetics

CV

Ivana Šušković has graduated from the University of Zagreb, Faculty of Humanities and Social Sciences in 2009 and acquired master's degrees in Phonetics and Linguistics. For the last ten years she has been working as an audiologist in Microton d.o.o., where she applies her knowledge and education in phonetics while assessing hearing problems of clients and helping them choose and use the right hearing aids. Before her current position, she gained additional experience in applied phonetics as a rehabilitator at the Slava Raškaj Educational Center where she helped in treatments for the restoration and development of speech. Also, as a substitute phonetician she gained a valuable one-year experience on HRT national television working with reporters and anchors on their speaking skills. As for her experience teaching phonetics, she has been an associate lecturer at the Department of phonetics at the Faculty of Humanities and Social Sciences in Zagreb since 2014. She has taught students in the field of audio technology and has always based her lectures on her extensive practical experience in this field.

Tomić, Diana

Academic degree doctor of philosophy

Title associate professor

Organizational unit Department of Phonetics, Department of Phonetics,

CV

Diana Tomić completed PhD at Postgraduate Doctoral Study in Linguistics (Phonetics), University of Zagreb in 2013. Currently, she is working as an Assistant Professor at the University of Zagreb (Department of Phonetics, Faculty of Humanities and Social Sciences). She has been teaching various courses at both B.A. and M.A. levels (principal instructor in courses such as Public Speaking Culture, Business Communication and Media Delivery for Kinesiologists etc.) and has also participated as an instructor at Doctoral Summer School of Postgraduate Doctoral Study in Information and Communication Science. She works as trainer of communication and public speaking skills for various life-long educational projects organized by the Faculty. Since 2012 she has been a Board member of the Phonetic Section of Croatian Philological Association and since 2016 she has served as the President; since 2015 she has served as a Main Secretary in the academic journal Govor/Speech; worked on several professional projects (VOC.COM – funded by IPA funds EU, organized by Dubrovnik Vocational School for Economy, ProGOVORi – funded by The Ministry of Science and Education). Her scientific interest is twofold: speech development and rhetorical pedagogy.

Trotić, Robert

Academic degree	doctor of philosophy
Title	full professor
Organizational unit	Department of Phonetics, Department of Phonetics

CV

Professor Robert Trotic, MD, PhD is an otorhinolaryngologist and audiologist, with a clinical practice and research specializing in otology, audiology and neurotology. He is a professor in the Department of Otorhinolaryngology & Head and Neck Surgery in the Sestre milosrdnice University Hospital Center in Zagreb (Croatia), Head of Otology and Neurotology Department, president of the Croatian Society for Cochlear Implantaton and president of the Croatian Society of Audiology and Phoniatricians. He has a large experience in ear surgery, cochlear implantation and with active middle ear implants. His current research interest are audiology, balance problems, cochlear implants, hearing preservation surgery, challenges in active middle ear implants surgery, and has published and consults internationally widely in this fields.

Tuta Dujmović, Marijana

Academic degree

Title

Organizational unit Department of Phonetics, Department of Phonetics

CV

Marijana Tuta Dujmović is a professor of phonetics and Croatistics. Since 2011 she has been working at the Center for Cochlear Implants and Early Hearing Rehabilitation of the SUVAG, Polyclinic, and in September 2019 she became the head of the Center. During 2015 and 2016, he received additional professional training in the field of programming and functionality of cochlear implants, which provides her with additional knowledge that enables her to perform speech processors adjustment procedures, connection, and first adjustment, and check the functionality of cochlear implant components. As a lecturer she has participated in domestic and international symposia in the field of hearing and speech rehabilitation, and in the same field, she lectures at the General Verbotonal Seminar and Specialist Seminar at the Polyclinic SUVAG and in the course Hearing Disorders and Listening Rehabilitation Methodology, Faculty of Philosophy, University of Zagreb. Since September 2020, he has been working as an External Associate at the Department of Phonetics of the University of Zagreb in the course “Audiotehnika”. From 2012 to 2016 she was a member of the presidency of the Department of Phonetics of the Croatian Philological Society, from 2016 to 2020 president of the Croatian Verbotonal Association, and from 2016 to 2020 secretary of the Society of Phonetics Employees in Health Care. In 2012, she enrolled in the Postgraduate Doctoral Study of Linguistics at the Faculty of Philosophy in Zagreb. In 2006-2012, twice a year she worked as a mentor at the Rhetoric School "Ivo Škarić" for gifted high school students, organized by the Ministry of Science, Education and Sports and HFD.

Vidović Zorić, Ana

Academic degree doctor of philosophy

Title associate professor

Organizational unit Department of Phonetics, Department of Phonetics,

CV

Ana Vidović Zorić was born in 1981 in Sisak, where she finished primary and grammar school. In 2006 she obtained a master's degree in Croatian language and literature and Phonetics, and in 2015 she earned her PhD, with a thesis entitled Speech errors in phonological encoding and phonetic realization at the Faculty of Humanities and Social Sciences, University of Zagreb. Since 2008 she has been working at the Department of Phonetics at the Faculty of Humanities and Social Sciences, where she is currently a postdoctoral researcher giving lectures in several courses.

She is also an ISVU and MOZVAG coordinator, and the member of the Committee for Quality Assurance, and the Ethics committee at the same Department. She collaborated on the scientific research project Production and perception of speech, and currently collaborates on two scientific research projects: CROCO – Coarticulation in Croatian speech: instrumental investigation, funded by the Croatian science foundation and the project entitled Speech errors database, funded by the University of Zagreb. She is executive secretary of the Phonetic journal Govor / Speech. She is also a member of the Croatian Applied Linguistics Society, as well as the Croatian Philological Society. Her research interests encompass neurophonetics, speech production and speech (dis)fluency. She regularly publishes scientific papers and participates in scientific conferences.

Vlahović, Sanja

Academic degree doctor of philosophy

Title assistant professor

Organizational unit Department of Phonetics, Department of Phonetics

CV

Sanja Vlahović was born in Zagreb where she finished primary and secondary school as well as the School of Medicine of the University of Zagreb. She graduated in 1991 and her first job was at the Student Health Center, where she worked until June 1997, when she began a specialization in otorhinolaryngology at the Sestre Milosrdnice Clinical Hospital Center. She finished the specialization in 2001, since when she works at the SUVAG Polyclinic. She passed the subspecialist exam in audiology in 2008. Since 2007, she has been the head of the Department for Medical Diagnostics and Rehabilitation of the SUVAG Polyclinic, and the deputy director of the SUVAG Polyclinic in the period from 2009 to 2014, and since 2017. She defended her doctoral dissertation in April 2014, and in 2015 she was elected to the scientific title of research associate. She was elected to the title of adjunct assistant professor at the Logopedic studies of the University of Rijeka in 2021 for the Audiology course.

She was a long-term member of the Expert Group for the Cochlear Implantation Candidate Selection at the Ministry of Health of the Republic of Croatia, and now is a member of the Advisory Committee for the Cochlear Implantation. Since the academic year 2015/2016, she participate as a lecturer at the study of phonetics at the Faculty of Philosophy at the course Hearing Disorders and Methods of Hearing Rehabilitation, and has participated as a lecturer in postgraduate classes at the School of Medicine, University of Zagreb, Verbotonal seminars and courses, as well as several continuing medical education courses. She has participated at numerous Croatian and international professional and scientific conferences. As an author and co-author, she has published several professional and scientific papers in domestic and foreign journals, and is a long-term reviewer of an international scientific journal.

Vlašić Duić, Jelena

Academic degree doctor of philosophy

Title full professor

Organizational unit Department of Phonetics, Department of Phonetics,

CV

She was born 1973 in Split. She attended primary school in Vela Luka and grammar school and music school in Zagreb. She got her MA in Phonetics and Croatian Language and Literature in 1999 at the Faculty of Humanities and Social Sciences, University of Zagreb with the thesis “Verbal humor in collection of poems Libro Dubaja Marusa by Šime Vučetić”. At the same faculty she got her PhD in Croatian Language in 2009 with the Thesis “Dialogue in Croatian film“. From 2000 to 2010 she worked as Instructor and Junior Researcher, from 2010 to 2018 she is Assistant Professor and until present she is Associate Professor at the Department of Phonetics at Faculty of Humanities and Social Science, University of Zagreb. She teaches courses in phonetics and rhetoric: Speech Linguistic, Oratory Methods, Orthoepy of Croatian Language II, Rhetoric and Stylistics and also Diction on Academy of Music, University of Zagreb. In 2009 she teached Dialogue in Croatian film on Postgraduate Doctoral Program in Linguistics and Written and Spoken Communication in Croatian on Postgraduate Specialist Study of Applied Croatistics. As phonetician she worked for nine years at Croatian Television and three years at RTL Television in Service for language and speech with journalists and TV anchors. As a lecturer she worked at the School of Rhetoric Ivo Škarić, teaching rhetoric to high school students at 3 seminars.

For scientific research she participated in two projects funded by Croatian Ministry of Science, Education and Sports where principal investigator was Branko Vuletić: Speech stylistics in poetic and political communication (1996 – 2002) and Speech stylistics in literary and public communication (2002 – 2011). In 2018 she was principal investigator on project Development of a corpus for learning and teaching Croatian accents funded by grant from the University of Zagreb and has actively participated at various domestic and international conferences and she has published, individually or in collaboration with other authors, over 30 papers in domestic and international proceedings and journals. She has written a scientific book "To Abyssinia for a Phonetician: Dialogue in Croatian film" (2013) and co-authored a book titled "Accent on the accent" (2021) with Blaženka Martinović and Elenmari Pletikos Olof.

She is a member of Croatian Philological Association, Croatian Applied Linguistics Society, Language and Speech Council at Croatian Television, a member of the editorial board in Journal for phonetics Govor/Speech. From 2016 to 2017 she was the head of the Department of Phonetics at Faculty of Humanities and Social Science, University of Zagreb. In 2019 she was member of the Programme committee of the international conference Meaning in Language – from individual to collective (Rijeka, Croatia) and Programme committee chairman of the international conference Speech Research (Zagreb, Croatia).

Volenec, Veno

Academic degree	doctor of philosophy
Title	associate professor
Organizational unit	Department of Phonetics, Department of Phonetics,

CV

Veno Volenec is an Associate Professor of Phonetics at the University of Zagreb. He pursues scientific research in the areas of theoretical phonology, the phonology-phonetic interface, and the neurobiology of language and speech. He is the founder of Logical Phonology and Cognitive Phonetics. He has presented the main principles and empirical results of these two theoretical frameworks at numerous high-profile publications and invited talks.