

LING2006: Phonetics

Callaghan

Semester 1 - 2024



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

The School of Humanities, Creative Industries and Social Sciences is committed to providing an inclusive environment in which all cultures are accorded respect and all students and staff are expected to act with honesty, fairness, trustworthiness and accountability in dealings with others. The School recognises and respects the unique histories and cultures of Aboriginal and Torres Strait Islander peoples, their unbroken relationship with the lands and the waters of Australia over millennia, and the validity of Aboriginal ways of knowing. We are dedicated to reconciliation and to offering opportunities for Aboriginal and Torres Strait Islander peoples to access and succeed in higher education.

OVERVIEW

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| Course Description | The linguistic study of speech sounds on a phonetic basis. It provides a detailed analysis and description of speech sounds, with particular emphasis on articulatory phonetics, with considerable attention also given to acoustic phonetics. |
| Academic Progress Requirements | Nil |
| Requisites | This course replaces LING3006. If you have successfully completed LING3006 you cannot enrol in this course. |
| Assumed Knowledge | LING1111 or equivalent introduction to Phonetics. |
| Contact Hours | Callaghan Lecture Face to Face On Campus 1 hour(s) per week(s) for 12 week(s) starting Week 1 Tutorial Face to Face On Campus 1 hour(s) per week(s) for 12 week(s) starting Week 1 |
| Unit Weighting | 10 |
| Workload | Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course. |

COURSE OUTLINE

CONTACTS

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|---------------------------|---|
| Course Coordinator | Callaghan A/Pr Kiwako Ito Kiwako.Ito@newcastle.edu.au (02) 4921 6109 Consultation: Via appointment |
| Teaching Staff | Tutorials: Alex Cowan alex.cowan@uon.edu.au |
| School Office | School of Humanities Creative Industries and Social Sciences Social Sciences Building Callaghan HCISS@newcastle.edu.au +61 4985 4500 |

SYLLABUS

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| Course Content | An introduction to the analysis and description of speech sounds, with particular emphasis on articulatory phonetics and considerable attention given to acoustic phonetics. Data will be taken from English and from a range of typologically diverse languages, as well as from disordered speech. |
| Course Learning Outcomes | On successful completion of this course, students will be able to: <ol style="list-style-type: none">1. Describe in detail the articulatory phonetics (i.e. pronunciation) of speech sounds from a range of languages and from disordered speech.2. Identify speech sounds from audio samples of speech from a range of language sources.3. Demonstrate an understanding of the instrumental acoustic analysis of speech sounds in theory and practice (i.e. measuring their physical properties).4. Interpret spectrograms (voiceprints) in order to analyse acoustic features of speech sounds. |
| Course Materials | Required Reading: Textbook: The Sounds of Language: An introduction to Phonetics and Phonology Elizabeth C. Zsiga Wiley-Blackwell Other course materials will be made available on the Canvas website. |

SCHEDULE

| Week | Week Begins | Topic | Readings | Learning Activity |
|----------------------------|-------------|---|---------------------|--|
| 1 | 26 Feb | Introduction: What is phonetics? Review: POA/MOA/voicing for Consonants Broad transcription | Zsiga Ch1-2 | Broad transcription exercise Starting Praat |
| 2 | 4 Mar | Consonants and Vowels Narrow transcription | Zsiga Ch3-4 | Narrow transcription exercises doing it in Praat |
| 3 | 11 Mar | Segmentation | Zsiga Ch3-4 | Transcriptions cont'd Praat segmentation exercises for Assessment 1 |
| 4 | 18 Mar | Segmentation & Physiology respiration, laryngeal and supra-laryngeal gestures | Zsiga Ch 5: 5.1-5.3 | Segmentation & transcription in Praat cont'd Professional Task 1 DUE Fri 22 March 11:59 pm |
| 5 | 25 Mar | More Physiology Gesture coordination | Zsiga Ch 5: 5.4-5.5 | Praat: zooming in on sound waveforms Review for Exam |
| 6 | 1 Apr | Review for Online quiz I (NO CLASS on MON) | Review | Class Examination Quiz 1 Friday 5 April 11:59PM |
| 7 | 8 Apr | Acoustic Phonetics: sound waveforms | Zsiga Ch6 | Praat: Observing spectra and spectrograms Cont'd |
| Mid-Semester Recess | | | | |
| Mid-Semester Recess | | | | |
| 8 | 29 Apr | Spectra and Spectrograms | Zsiga Ch7 | Praat: Observing spectra and spectrograms |
| 9 | 6 May | Harmonics and Formants | Zsiga Ch 8 | Praat: measuring harmonics and formants |
| 10 | 13 May | Speech Perception: Anatomy & Physiology How speech perception is tested | Zsiga Ch 9 | Praat: measuring RMS and pitch |
| 11 | 20 May | Phonology: Phonemes and Allophones, sound distributions | Zsiga Ch 10 | Praat segmentaion and measurement exercises cont'd Professional Task 2 DUE Fri 24 May 11:59 pm |
| 12 | 27 May | Phonology: Phonotactics & Alternations, Distinctive Features | Zsiga Ch11 &12 | Praat exercises cont'd prep for the Exam |
| 13 | 3 Jun | Reviews | Zsiga Ch 6-12 | Review for the Exam |
| Examination Period | | | | Online examination by Friday 14 June 11:59pm |
| Examination Period | | | | |

ASSESSMENTS

This course has 4 assessments. Each assessment is described in more detail in the sections below.

| | Assessment Name | Due Date | Involvement | Weighting | Learning Outcomes |
|---|---------------------|--|-------------|-----------|-------------------|
| 1 | Class Examination | Week 6 (5 th April 11:59PM) | Individual | 20% | 1 |
| 2 | Professional Task 1 | Week 4 (22 nd March 11:59 pm) | Individual | 25% | 2, 3, 4 |
| 3 | Professional task 2 | Week 11 (24 th May 11:59 pm) | Individual | 20% | 2, 3, 4 |
| 4 | Online Examination | Week 14 (14 th June 11:59pm) | Individual | 35% | 1, 2, 3, 4 |

Late Submissions The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 - Class Examination

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| Assessment Type | In Term Test |
| Purpose | The Quiz will assess students' understanding of the materials covered in the first 5 weeks: Consonant and Vowel features, how to use IPA to transcribe speech, distinction between broad and narrow transcriptions, and the physiology of speech production. |
| Description | The exam consists of 20 multiple choice questions |
| Weighting | 20% |
| Length | 90 min |
| Due Date | Week 6 (5 th April 11:59PM) |
| Submission Method | Online |
| Assessment Criteria | Marked correct or incorrect |
| Return Method | Online |
| Feedback Provided | Online |

Assessment 2 - Professional Task 1

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|----------------------------|---|
| Assessment Type | Professional Task |
| Purpose | The first professional task assesses students' ability to record the target phrases/sentences clearly using Praat and use the Praat TextGrid function to annotate speech into the word and the phoneme tiers. |
| Description | Students will be asked to annotate 5 different speakers' utterances. They will be asked to create a TextGrid file for each .wav file for annotation. They will submit an image file (.pdf) showing the speech waveform, spectrogram and Word and Segment tiers all aligned on one page per speaker: i.e., 5 A4 pages total. |
| Weighting | 25% |
| Length | 5 A4 pages total |
| Due Date | Week 4 (22 nd March 11:59pm) |
| Submission Method | Online |
| Assessment Criteria | See Canvas |
| Return Method | Online |
| Feedback Provided | Online |

Assessment 3 - Professional task 2

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|------------------------|--|
| Assessment Type | Professional Task |
| Purpose | The second Professional Task assesses students' ability to measure segmental duration, formant values, pitch and intensity (RMS) in Praat. |
| Description | Students will be asked to record four different speakers articulating the same sentence. They will be asked to report the target words' duration, vowel formant values, mean pitch values and RMS in a table. The Praat picture files must be submitted together with the summary table. |
| Weighting | 20% |
| Length | 2-3 A4 pages (following the template for figures) |
| Due Date | Week 11 (Fri 24 th May 11:59 pm) |

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| Submission Method | Online |
| Assessment Criteria | See Canvas |
| Return Method | Online |
| Feedback Provided | Online |

Assessment 4 - Online Examination

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| Assessment Type | Quiz |
| Purpose | The Online Exam will assess students' general knowledge of Acoustic Phonetics, Speech Perception, and Phonology. |
| Description | The exam consists of multiple choice questions (5%), one word/phrase answers (10%), short sentence answers (10%), and short descriptions/explanations (10%) |
| Weighting | 35% |
| Length | 90 min |
| Due Date | Week 14 (14 th June 11:59pm) |
| Submission Method | Online |
| Assessment Criteria | Marked correct or incorrect |
| Return Method | Online |
| Feedback Provided | Online |

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

| Range of Marks | Grade | Description |
|----------------|-----------------------|--|
| 85-100 | High Distinction (HD) | Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives. |
| 75-84 | Distinction (D) | Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives. |
| 65-74 | Credit (C) | Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes. |
| 50-64 | Pass (P) | Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes. |
| 0-49 | Fail (FF) | Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action. |

*Skills are those identified for the purposes of assessment task(s).

Communication Methods

Communication methods used in this course include:

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.

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| Course Evaluation | Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement. |
| Oral Interviews (Vivas) | As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the Oral Examination (viva) Procedure . In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the Student Conduct Rule . |
| Academic Misconduct | All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to https://policies.newcastle.edu.au/document/view-current.php?id=35 . |
| Adverse Circumstances | <p>The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:</p> <ol style="list-style-type: none">1. the assessment item is a major assessment item; or2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;3. you are requesting a change of placement; or4. the course has a compulsory attendance requirement. <p>Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at: https://policies.newcastle.edu.au/document/view-current.php?id=236</p> |
| Important Policy Information | The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at https://www.newcastle.edu.au/current-students/respect-at-uni/policies-and-procedures that support a safe and respectful environment at the University. |

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.

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