



PLIN Modules – Module Information Sheet (2023/24)

1. General Information

- **Module Code:** PLIN0021
- **Title:** Model-based Phonetic Science
- **Credits:** 15
- **Module Tutor:** Yi Xu; **Contact:** yi.xu@ucl.ac.uk
- **Module Available at the following levels:**
 - **Level 6 UG**
 - **Level 7 PG**
- **Module Description:**
 - This course will present a critical examination of a number of major theoretical issues in phonetics research. There will be a focus on exploring how human speech can effectively transmit multiple layers of communicative meanings through an articulation process, and how the process can be computationally simulated. It will cover issues relating to tone and intonation, coarticulation and syllable, timing and coordination, and speech acquisition through vocal learning. An emphasis will be put on the most contemporary findings about speech, so as to present the state of the art in phonetic science. Also will be discussed heavily is research methodology in terms of its importance for the theoretical development in the phonetic aspect of speech.
- **Prerequisites:** Basic knowledge of phonology and phonetics
- **Timetable:** <https://timetable.ucl.ac.uk/tt/moduleTimet.do?firstReq=Y&moduleId=PLIN0021>
- **Summary:**
 - Introduction: Phonetics as a digitization interface of human speech
 - Basic dynamic encoding mechanism - Lessons from tone production
 - Intonation
 - Computational modeling of intonation
 - Coarticulation and syllable
 - Coarticulation and syllable (continued)
 - Timing and duration

- Phonetic decoding in speech perception
- Computational simulation of vocal learning
- Post-focus compression (PFC) and language evolution

- **Information for students on other programmes and Affiliate/intercollegiate students:**

If you want to take this module, you should select it on Portico as usual. Any general queries about taking the module can be addressed to pals.lingteachingoffice@ucl.ac.uk.

2. Teaching

- **Teaching methods and tutorial/lab arrangements:**

- 1 1hr lecture and 1.5hr backup each week. The backups will consist of a) Consolidation and extension of contents covered in lectures, and b) Unassessed class-projects that give students hands-on experience with digital analysis and computational modelling of speech prosody.

- **Communication:**

The preferred means of communications is by email to the course coordinator. You can expect a response within 48 hours.

- **Workload:**

- Lectures: 10
- Private reading: 60
- Seminars/ problem classes / tutorials: 15
- Required written work and assessment: 60
- Revision: 48

- **Core Texts:** n/a

- **Libraries and other resources:** n/a

- **Additional Information:**

Late work and extenuating circumstances

Any requests for extensions to deadlines, or for extenuating circumstances to be taken into consideration by examiners, should be made by completing the relevant form. Instructions are available on the Moodle page for this module, under the Assessment tab. No extensions or special consideration can be given outside of this process, and there is a grading penalty for late submission of

coursework. Again, information about this policy can be found on the course Moodle page, under the 'Assessment' tab.

- **Recording:** Lectures for this module are recorded, and a link to recordings will be made available via the Moodle page for this module. Please note that recordings can fail for a number of reasons.

3. Assessment

- **Level: 4/5/6/7 UG/PG**

Mode of Assessment	Weight	Format
Coursework	25%	Assignment, 1000 words.
Coursework	25%	Assignment, 1000 words.
Coursework	50%	Essay, 2000 words

Table 1. Assessment Formats and Weightings

- **Other assessment information:** Coursework submission is via Moodle.

4. Types of Feedback

Types of feedback students on this module can expect to receive.

4.1 Generic Tutor Feedback

Type of Feedback	Provided
Oral feedback is given to the whole class (e.g. this may be about coursework, an in-class or online task).	Yes
Electronic feedback to the whole group (e.g. see oral feedback above).	No
Printed feedback to the whole group (e.g. answers to an exercise done in class, feedback relating to general performance on coursework or a task etc).	No
Coverage of topics in class which have been raised by members of the class (e.g. in areas where students ask for clarification/elaboration, these topics are addressed in class).	Yes
Electronic responses to the whole group via the VLE or via email (eg sending replies to individual queries to the whole group).	Yes

Table 2. Generic Tutor Feedback

4.2 Automated Feedback

Type of Feedback	Provided
Tests / quizzes within Virtual Learning Environment (VLE). These are tests which do not count towards the module mark, but serve to inform students of how well they are understanding materials taught.	No

Personal Response Systems used within class (e.g. to test that students understand a concept, to survey which topics students would like elaborated).	No
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Table 3. Automated Feedback

4.3 Specific Targeted Tutor Feedback

Type of Feedback	Provided
Oral responses within class (e.g. demonstrators talking to students in lab, stats and computing classes).	Yes
Oral responses outside class (e.g. students are invited to telephone or meet with module staff with individual queries regarding topics taught).	No
Electronic responses to queries from individual students are provided (as above)	Yes
Summative comments on coursework (e.g. handwritten feedback at the end of a written assessment which counts towards the module mark).	Yes
On-script comments in the body of individual summative coursework	No
Indication of achievement against set marking criteria (e.g. for an individual essay or a lab report).	Yes
Feedback using a standard feedback form (e.g. essay feedback form or lab marking forms)	No
Oral feedback on coursework talking to individual students about their coursework on the phone or in person, this could be summative points or specific comments on parts of the essay / lab report / project.	Yes
Electronic feedback on coursework. This could be via email or within VLE (e.g. using Gradebook on Moodle).	Yes

Table 4. Specific Targeted Tutor Feedback

4.4 Feedback From People Other Than Module Staff

Type of Feedback	Provided
Peer feedback: fellow students commenting on/marking each other's work, or working together on a task (e.g. group work providing students with feedback on their ideas/understanding).	No
Self-feedback (e.g. students evaluating their own coursework, worksheet answers, etc.)	No

Feedback from seminar tutors: Students may receive feedback on their understanding of topics/answers to queries/feedback on coursework from their tutor (e.g. poster, Research Project presentations etc)	No
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Table 5. Feedback from People other than Module Staff

4.5 Feedback related to examinations

Type of Feedback	Provided
A mock examination is given to help students prepare for the final exam.	No
Marks for the previous year provided online , with a breakdown of marks for individual questions	No
Samples of real student work , such as coursework, exam essays, and projects from previous students on the module.	No

Table 6. Feedback related to examinations

5. Specific Transferable Skills

Transferable skills students on this module can expect to develop, categorised into skill areas.

5.1 Academic

Type of transferable skill	Provided
Learning Actively – Able to approach learning as an active agent, taking responsibility for the process and outcomes.	Yes
Analysing Data – Able to filter and organise information to develop an argument and work toward a conclusion, applying numerical analysis where appropriate.	No
Thinking Critically – Able to consider claims made against the evidence available and to develop one’s own view systematically	Yes
Using Sources – Able to locate and use appropriate books, journals, websites and other sources to gather relevant data	No
Solving Problems – Able to use systematic approaches to overcome difficulties in producing a desired outcome	No
Managing Projects – Able to plan a coordinated set of tasks and enact over time to produce a substantial result	Yes

Table 7. Academic transferable skills

5.2 Self-Management

Type of transferable skill	Provided
Reflecting on Learning – Able to review dispassionately one’s approaches to learning and the outcomes and progressively improve the process	No
Managing Time – Able to prioritise tasks and commitments to achieve optimum results in a designated timeframe	Yes
Being Creative/Innovative – Able to generate and apply original approaches to tasks and problems and produce improved outcomes	Yes
Assessing Oneself – Able to identify one’s own strengths, weaknesses, progress made and action needed to improve effectiveness	No
Being Independent – Able to work at own initiative with minimal supervision, taking responsibility for action and outcomes	No
Managing Resources – Able to allocate and conserve funds and other resources on a day to day basis and to support projects	No

Table 8. Self-management transferable skills

5.3 Communication

Type of transferable skill	Provided
Writing – Able to communicate in textual forms (essay, reports, journal entries, web pages etc.) in an appropriate style with a clear narrative flow	Yes
Listening – Able to hear and appreciate the content, background and purpose of what someone else is communicating to you	Yes
Using Information Technology – Able to use digital technology for managing information and to mediate communication for learning and other purposes	No
Presenting – Able to speak to an audience, using visual aids as appropriate and respond to questions	No
Communication globally – Able to understand and manage factors affecting communication across cultures, including means of monitoring progress	No
Planning and making decisions – Able to identify steps needed to work towards global and communicate them, including means of monitoring progress	No

Table 9. Communication transferable skills

5.4 Working with others

Type of transferable skill	Provided
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Working in teams – Able to co-operate with others, to contribute your strengths and learn from theirs with a common purpose	No
Negotiating – Able to respect the needs and interests of others when they differ from your own and to find common ground	No
Leading – Able to galvanise a team into cooperative action, to manage, guide or facilitate a group to maximise success	No
Understanding others – Able to recognise the variety of ways in which people can think and approach tasks, adjusting your own to suit	No
Assessing self and peers – Able to assess your own performance objectively and to give and receive constructive feedback with others	No
Managing change – Able to adapt to changing circumstance and maintain focus on the group's declared goals	No

Table 10. Working with others transferable skills