University College London
Department of Phonetics and Linguistics

MSc Speech and Hearing Sciences

Handbook 2006-2007

(revised)

MSc Speech and Hearing Sciences Handbook 2006-2007

These notes should be read in conjunction with the UCL publication *Student Handbook 2006-07* which you are given when you enrol. The Regulations governing the degree can be found in the UCL publication *Regulations for Students* (the "Blue Book"). Examination Regulations are in another booklet known as the "Pink Book". Copies of the Blue Book and the Pink Book are available in Departmental Offices.

1. Introduction

Aims of the programme

The programme provides a postgraduate combined specialisation in the Speech and Hearing Sciences. It is designed to provide a thorough multi-disciplinary introduction to modern knowledge and current research in the inter-related aspects of human spoken communication. It aims to prepare students from different backgrounds for work in the rapidly developing fields of speech and hearing research, and their technological applications.

The programme will enable students, for example, to engage in investigations of the relations between computational, auditory, and cognitive processing of speech; to contribute to the development and applications of speech synthesis and recognition; to contribute to technological advances in speech pathology - particularly to analysis, assessment and to training aids; and to contribute to audiology, particularly with electro-cochlear and speech-processing hearing aids, as well as receptive evaluation.

Speech-to-sign translation

The course is run within the Centre for Human Communication at UCL, with the Department of Phonetics and Linguistics as the admitting department. Other members of the Centre co-operate in the design and teaching of the course, including the Department of Human Communication Science, the Department of Psychology, the Institute for Cognitive Neuroscience, the Institute of Laryngology and Otology, and the Centre for Auditory Research.

The combination of expertise in speech and hearing within the centre is probably unmatched in the UK. The members of the centre are at the forefront of research in hearing, audiology, auditory rehabilitation, speech pathology, phonetics and linguistics, speech technology, speech perception and cognitive processing.

Organisation

The course is organised around two teaching terms, a period of examination and an individual research project. There is some flexibility available to students within a framework of taught courses in Speech Science, Hearing Science, Cognitive Science and Research Methods. Regular tutorials provide additional support to learning, while seminars provide exposure to a range of research activities.

Staff

Course Tutor:	Dr. Mark Huckvale	(mark@phon.ucl.ac.uk)
External Examiner:	*To be appointed*	
Head of Speech and Hearing Sciences Section:	Prof. Stuart Rosen	(stuart@phon.ucl.ac.uk)
Head of Department:	Dr. Valerie Hazan	(val@phon.ucl.ac.uk)
Section Secretary:	Lisa Migo	(lisa@phon.ucl.ac.uk)
Departmental Secretary:	Molly Bennett	(molly@phon.ucl.ac.uk)
Laboratory Technician:	David Cushing	(dave@phon.ucl.ac.uk)
Listening Centre Secretary:	Mary Wykes	(mary@phon.ucl.ac.uk)

Mail Address	**Telephone Numbers**	
Department of Phonetics and Linguistics	Course Tutor:	020 7679 5002
University College London	Section Office:	020 7679 7401
Wolfson House	Departmental Office:	020 7679 7174
4 Stephenson Way	Speech Sciences Laboratory:	020 7679 7400
London NW1 2HE	Human Communication Dept:	020 7679 4200
Student pigeon holes for mail are in room G24.	Wolfson House Fax:	020 7769 5107

Faculty Office

The Life Sciences Faculty Office is in The Medical School Building, 74 Huntley Street.

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2. Term and week dates

Autumn Term 2006:
Registration Week:	25 September to 29 September
Teaching Weeks 1-5:	2 October to 3 November
Reading Week:	6 November to 10 November
Teaching Weeks 6-10:	13 November to 15 December

Spring Term 2007:
Teaching Weeks 1-5:	8 January to 9 February
Reading Week:	12 February to 16 February
Teaching Weeks 6-10:	19 February to 23 March

Summer Term 2007:
Revision Classes & Examinations.	23 April to 8 June
Project Deadline:	15 September

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3. Syllabus

Speech Science Components

S1: **Introduction to Phonetics & Phonology**. An introduction to phonetics and phonetic transcription. Taught by Michael Ashby and John Maidment. Term 1. Assessed by coursework only. This may be subsituted for one of these courses:

> Animal Communication and Human Language
> Practical Phonetics
> Phonetic Theory

S2: **Introduction to Speech Science**. An introduction to key concepts in acoustics, speech production & perception. Taught by Paul Iverson. Lectures and laboratory classes. Term 1. Assessed by two pieces of coursework.

S3: **Speech Science Seminar Series**. Research topics in Speech Technology & Experimental Phonetics. Taught by Speech Sciences section staff. Seminars only. Term 2. Assessed by part of Speech Science exam.

S4: **Speech Perception Seminar Series**. Research Topics in Speech Perception. Taught by the Speech Sciences section staff. Seminars only. Term 2. Assessed by part of Speech Science exam.

Hearing Science Components

H1: **Signals and Systems**. An introduction to quantitative description of signals and systems. Taught by Stuart Rosen. Tutorials. Term 1.

H2: **Psychoacoustics**. Introduction to the structure and function of human hearing, psychoacoustics of normal and impaired hearing. Taught by Stuart Rosen. Lectures and lab classes. Term 2. Assessed by part of Hearing Science exam.

H3: **Audiology.** An introduction to diagnosis and rehabilitation of hearing impairment. Taught by Matt Smith. Lectures and seminars. Term 2. Assessed by part of Hearing Science exam.

Cognitive Science Components

C1: **Psycholinguistics – General Processing**. An introduction to how experimental psychologists have studied and modelled language processing. Taught by Richard Breheny. Lectures only. Term 1. Assessed as part of Cognitive Science exam.

C2: **Psycholinguistics – Language Acquisition**. An overview of the major concepts and issues which inform current research in first and second language acquisition. This course is not running, and needs to be substituted with one of:

> Neurolinguistics & Conversational Analysis
> MSc Human Communication option in Developmental disorders
> Language acquisition course at SOAS

C3: **Cognitive Neuroscience and Psychology**. Introduction to the cognitive psychology and cognitive neuropsychology of language processing. Taught by Judit Druks and others in Human Communication Sciences. Lectures only. Terms 1 & 2. Assessed by coursework and short test.

Research Methods Components

R1:   **Statistics and Research Methodology**.   Introduction to statistics and experimental design using computer tools. Taught by Chris Donlan and others in Human Communication Science. Practical classes only. Term 1 only. Assessed by essay and short test. (Advanced statistics course also available).

R2:   **Computational methods in Speech and Hearing Science.** Use of computers to support research, including web-page design, shell programming, statistical analysis, programming and signal processing. Taught by Mark Huckvale. Lectures and practicals. Terms 1 & 2. Assessment by mini-project.
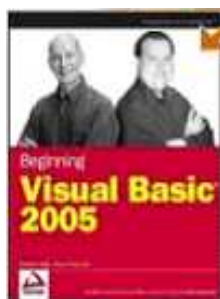
Open seminars are held frequently at a number of nearby sites. Look out for seminar series in the Linguistics section, the Phonetics section, the Psychology department and the department of Human Communication Sciences.   There will also be a Speech and Hearing sciences seminar series at Wolfson House with a number of invited speakers. Check regularly the Departmental web pages on http://www.phon.ucl.ac.uk/events/.
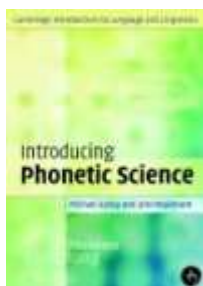
4. Text Books & Reading List

There is no single text book that covers the majority of material taught on the programme. You will find that each course component and even each teaching session will make specific reading recommendations. As far as possible we make copies of hard-to-get readings available for loan from the Listening Centre. Students are under no obligation to purchase textbooks, and UCL has excellent library facilities. However, if you would like to purchase books, these are suggestions.
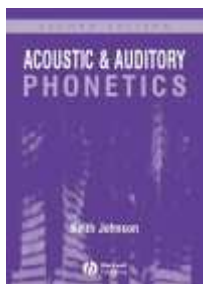

For the Signals and Systems course students are encouraged to purchase **Signals and Systems for Speech and Hearing,** by Stuart Rosen and Peter Howell, 1st edition, 1990, Academic Press London, ISBN: 0125972318
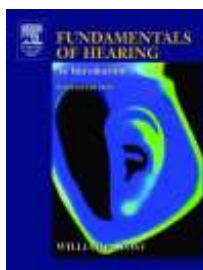

For the Computational Methods course this year, we are going to try out Visual Basic 2005 Express Edition. This is a new programming environment that may be freely downloaded from Microsoft. You will probably get the most out of this langauge if you get a book about Visual Basic 2005 in general, or Visual Basic 2005 Express Edition in particular. I found **Beginning Visual Basic 2005** by Willis & Newsome very good, but there are many others. Choose one to suit you.

For an introduction to Phonetics, we recommend **Introducing Phonetic Science**, by Michael Ashby and John Maidment, 2005, Cambridge University Press ISBN: 0521004969

For coverage of essential acoustic phonetics, we recommend **Acoustic and Auditory Phonetics,** by Keith Johnson, 2nd edition 2002 Blackwell Publishers ISBN: 1405101237

For a thorough introduction to hearing, we recommend **Fundamentals of Hearing: An Introduction**, by William A. Yost, 2000, Academic Press, ISBN: 0127756957

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5. Assessment

Coursework
Many courses will set coursework to be completed by the student within the teaching term. Submission dates will always be given. Coursework should be handed to the tutor for the course on or before the submission date. Coursework should be always be written in clear and precise English and be well presented. Word processing of coursework is recommended but not required.

Coursework is first marked by the course tutor and usually returned to the student within two weeks. Students are responsible for keeping the marked work until the end of the teaching period. Students should then submit a folder containing all marked work for second marking by an independent internal examiner and checking by the external examiner.

UCL uses a letter grading scheme as follows: 0-35%:F, 35-40%:E, 40-50%:D, 50-60%:C, 60-70%:B, 70-80%:A, 80-100%:A*. The pass mark for all MSc assessments is 50%, i.e. 'C' or above. The distinction mark is 'A' or above.

"Lahwaah, buwha buwhaah, gullygah abawaa mey ayeeyaah. Is that normal?"

Written Examinations
There are three written examinations that are normally held in May:
1. Speech Science, 3 hours (based on S3 and S4)
2. Hearing Science, 3 hours (based on H2, and H3)
3. Cognitive Science, 2 one-hour exams (based on C1 and C3)

You will need to register for the exams at the start of the spring term. Written examinations are marked anonymously and independently by two internal examiners, and the marking checked by the external examiner. You will be informed whether you have passed the examinations (but not the percentage mark) around the end of June.

Students who are dyslexic may, in some cases, be allowed extra time for examinations. Applications must be made through the course tutor. The deadline for applications for extra time is 1st March. Arrangements can also be made for students to sit examinations in a special facility with medical help on call.

Project Dissertation
The dissertation is assessed by the student's supervisor and an independent internal examiner, with the marking validated by the course external examiner.

Balance of Marks
The course assessment is organised under five headings: Speech Science (16.7%), Hearing Science (16.7%), Cognitive Science (16.7%), Research Methods (16.7%), and Project (33.3%). Within the taught components, coursework typically counts for 30% with the final exam counting for 70%. To obtain a degree, students normally need to pass **all** five sections, i.e. obtain an average of at least 50% in each. To obtain a distinction, students normally need to obtain an average mark of 70% or greater in the project and in at least 2 other sections, and have good marks in the other sections.

Final Degree Results
The final examiners' meeting usually takes place at the end of October, with results sent to the University in early November.

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6. Project

General
The summer project is assessed for the degree solely by the dissertation. The dissertation should be word-processed and bound to usual good practice. The dissertation is due on or before 15th September. Any extensions caused by extenuating circumstances must be agreed before that date. We do not at present penalise theses for being too long, but dissertations should not be much longer than 10,000 words. The original and one copy should be submitted. One of these will be returned, the other will be put in the Wolfson House library.

Content
As well as describing the research work done in the project, the dissertation should include:
- An abstract, giving the main results of the project
- An introduction which sets the scene of the research work, suitable for a speech scientist without specific experience of the particular area.

- A conclusion which states what has been achieved and what else could be done in the area of the project.
- Bibliography and/or references of relevant articles.

Make sure you acknowledge any contribution made by others to the research work you describe. You may like to include an appendix giving raw results, so that others may study them in the future.

7. General Information

Submission of Coursework
Students are advised to make all efforts to submit coursework on time. Work that is late may be penalised or not even considered for assessment. Where illness or unforeseen difficulties cause a problem in meeting a deadline, the student is advised to obtain an extension from the tutor. Extensions may only be granted in advance of the submission date.

Plagiarism
Students are advised that the College has severe penalties for students found guilty of plagiarism (passing off others' work as ones own). To reduce any possibility of such a charge, students are advised to use clear and precise referencing for all bibliographic material used in coursework. Students may also be required to sign forms that coursework submitted is substantially their own work.

Complaints
All complaints should, in the first instance, be made to the course tutor. The student may also pursue complaints with the Head of Department and the Dean of the Life Sciences faculty.

Health
If you are likely to be away from College because of ill health for more than a single day, please let the section secretary know (020 7679 7401). The University health centre provides medical care for students of the College and can be found in Gower Place. The student counselling service provides help for individuals with any non-medical problems. The counselling service is at 3 Taviton Street.

Contact Address
Please make sure that the Course Tutor, the Section secretary and the Departmental secretary have up-to-date information about your term-time address and contact telephone number.

Access Fund
The College Access fund can provide limited support to students in financial difficulties. Applications may be made in December and March. Application forms are available from the Dean of Students' office. Judith Crompton is the Departmental co-ordinator for Access funds (020 7679 7317)

Access to Buildings
College buildings are normally open between 8am and 6pm. Outside those hours, students must be supervised by a member of staff. The front door of Wolfson House is locked at 4.30pm.

Tuition Fees

Students who are having problems with their tuition fee payment should discuss matters straight away with the Student Finance office (Registrar's Division, room G19 in the South Wing of the main building).
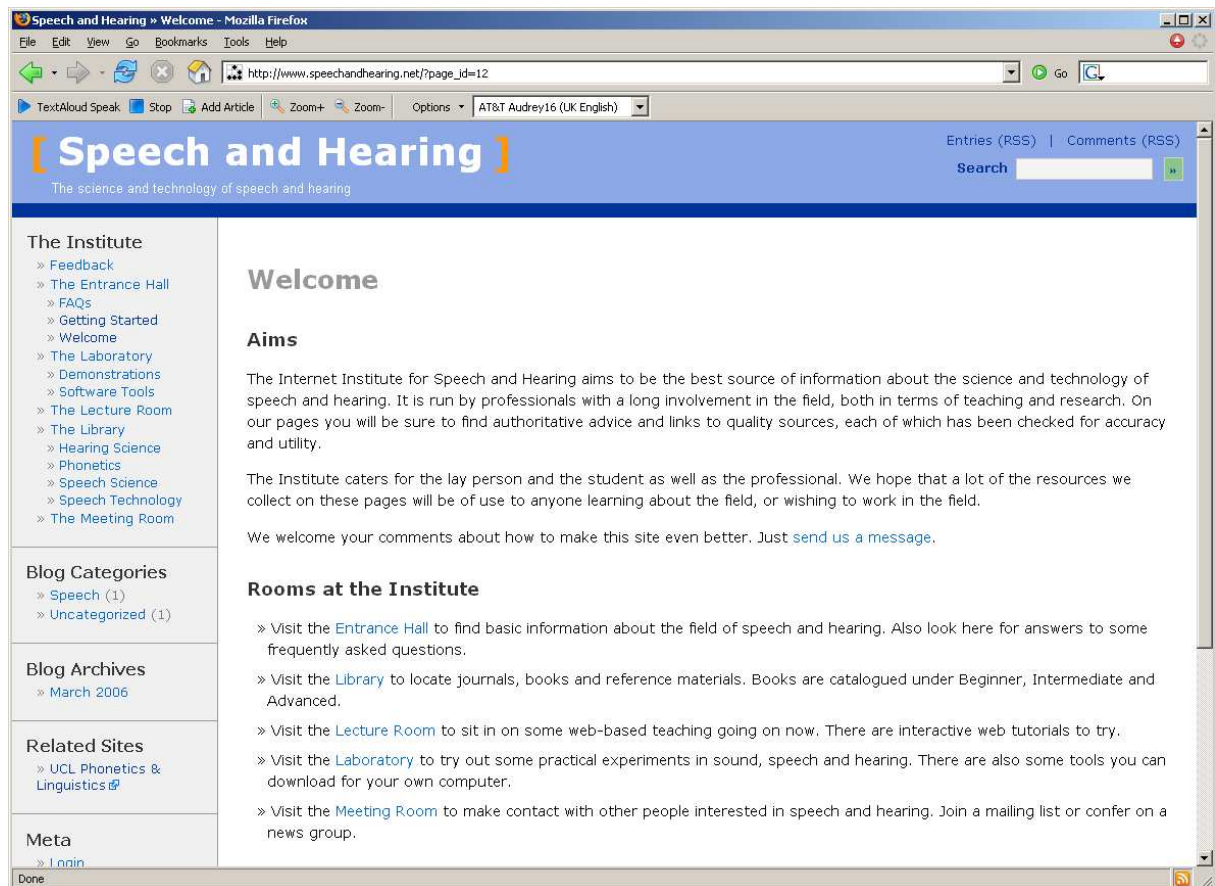
Disabled Students

The Disabilities Co-ordinator can also advise on other matters such as access and help for students with impaired hearing or vision. Advice is available from the UCL Disabilities Co-ordinator Marion Hingston Lamb (email disability@ucl.ac.uk, tel 020 7679 1343).

Visit

www.speechandhearing.net

For links to web-based learning resources in speech and hearing