

Syllabus

for course at first level

Forensic Linguistics

Forensisk lingvistik

7.5 Higher Education

Credits

7.5 ECTS credits

Course code:	LIN012
Valid from:	Spring 2009
Date of approval:	2008-11-11
Department	Department of Linguistics
Subject	General Linguistics
Specialisation:	G1N - First cycle, has only upper-secondary level entry requirements

Decision

This syllabus has been approved by the Board of the Department of Linguistics on November, 11, 2008.

Prerequisites and special admittance requirements

Swedish upper secondary school courses Swedish B/Swedish as Second Language B, and English B, or equivalent.

Course structure

Examination code	Name	Higher Education Credits
0012	Forensic Linguistics	7.5

Course content

This course focuses mainly on speaker identification and speaker profiling, but also deals with other areas of forensic linguistics. The course discusses the problems surrounding what really can be gathered from a voice and how accurately one can identify or profile a speaker on the basis of their voice or speech style. The significance of language, dialect and accent for the possibility to recognise or profile a speaker is reviewed, as is how memory works and how earwitness testimonies can be given, as well as which factors are significant for such testimonies to be meaningful. The course provides an insight into basic phonetics (the science of speech production and speech perception) and the methods available to analyse, improve or distort the speech signal.

Learning outcomes

Having completed the course the student has demonstrated an ability to:

- give an account of the problems surrounding speaker identification and speaker verification;
- describe and reflect upon how speaker, channel and listener variables affect speaker identification. e.g. gender, age, dialect, language, dissimulation, stress, drugs, memory, phone transfer and recording quality;
- give an account of language variables that are significant to identification.

Education

Instruction is given in the form of lectures. The provision of instruction at any given time is dependent on resources.

Forms of examination

- a. The examination is in the form of i) a written exam.

b. Students will receive letter grades on a three-point scale related to the learning objectives of the course:

VG = Pass with distinction

G = Pass

U = Fail

c. The assessment criteria for the course will be distributed at the beginning of the course.

d. In order to pass the course, the grade G or higher is required in all components.

e. If students fail a course unit and receive the grade U on an examination, they are allowed to retake the examination up to four times, as long as the course is still provided, in order to obtain a grade of G or higher. Students who fail their placement have the right to ask the Board of the Department to designate a second placement.

Students who receive a grade of G on an examination may not retake the examination to attain a higher grade. If students receive the grade U on an examination twice by the same examiner, they are entitled to have a new examiner appointed to determine the grade on the examination, unless there are any specific reasons against it. Such a request should be addressed to the Board of the Department.

Interim

If this course is discontinued, or its contents are substantially altered, students have the right to be examined according to this syllabus once per semester for three further semesters. However, the restrictions mentioned above still apply.

Limitations

This course may not be included in a degree together with a course, taken in Sweden or elsewhere, of identical or partially similar content.

Required reading

Course book: Hollien, H. 2002. *Forensic Voice Identification*. San Diego, CA: Academic Press. 201 s.

Articles: Baddeley, A. 2003. "Working memory and language: an overview". *J Commun Disord*, 36(3), 189–208. Eriksson, A. & F. Lacerda. Under utg. "Charlatanry in forensic speech science: A problem to be taken seriously". *International Journal of Speech, Language and the Law* (formerly *Forensic Linguistics*) 14:2. Eades, D. 2004. "Guidelines for the Use of Language Analysis in Relation to Questions of National Origin in Refugee Cases". *Speech, Language and the Law* 11:2, 1350–1771.
<http://www.equinoxjournals.com/ojs/index.php/IJSL/article/viewFile/555/1386> Eriksson, A. 2005. "Tutorial on Forensic Speech Science". *Interspeech Lisboa 2005*
http://www.ling.gu.se/~jonas/forensic/Eriksson_tutorial_paper.pdf French, P. et al. 2007. "Position Statement Concerning Use of Impressionistic Likelihood Terms in Forensic Speaker Comparison Cases". *International Journal of Speech Language and the Law*, 14:1. <http://www.forensic-speech-science.info/docs/position-statement.pdf> Johnson, K. 1997. *Acoustics and Auditory Phonetics*. Cambridge, MA: Blackwell Publishers. (pb): Kap 1–2. Köster, O. & N.O. Schiller, 1997. "Different influences of the native language of a listener on speaker recognition". *Forensic Linguistics* 4: 18–28. Parkvall, M. 2006. "Forensic Linguistics". I: *Limits of language : almost everything you didn't know you didn't know about language and languages*. London: Battlebridge. 135–138. Rose, P. 2002. *Forensic Speaker Identification*. U.K. and N. America: Taylor and Francis. Kap 1–2. Tulving, E., & D.L. Schacter, 1990. "Priming and human memory systems". *Science*, 247(4940), 301–306. Reference literature: Bachorowski, J.-A. & M. J. Owren, 1999. "Acoustic correlates of talker sex and individual talker identity are present in a short vowel segment produced in running speech". *Journal of the Acoustical Society of America* 106: 1054–1062. Black, J.W. et al. 1973. "Reply to 'Speaker identification by speech spectrograms: some further observations'". *Journal of the Acoustical Society of America* 54: 535–537. Bolt, R.H. et al. 1970. "Speaker identification by spectrograms: a scientists' view of its reliability for legal purposes". *Journal of the Acoustical Society of America* 47: 597–612. Bolt, R.H. et al. 1973. "Speaker identification by speech spectrograms: some further observations". *Journal of the Acoustical Society of America* 54: 531–534. Broeders, A.P.A. & A.G. van Amelsvoort, 1999. "Lineup construction for forensic earwitness identification". *Proceedings of the 14th International Congress of Phonetic Sciences*. San Francisco: 1373–1376. Broeders, A.P.A. et al. 2002. "Arranging a voice line-up in a foreign language". *Forensic Linguistics* 9: 104–112. Coleman, R.O. 1976. "A comparison of the contributions of two voice quality characteristics to the perception of maleness and femaleness in the voice". *Journal of Speech and Hearing Research* 19: 168–180. Coleman, R.O. & N.J. Lass, 1981. "Effects of prior exposure to stimulus material on identification of speaker's sex, height and weight". *Perceptual and Motor Skills* 52: 619–622. Endres, W. et al. 1971. "Voice spectrograms as a function of age, voice disguise, and voice imitation". *Journal of the Acoustical Society of America* 49: 1842–1848. Goggin, J.P. et al. 1991. "The role of language familiarity in voice identification". *Memory and Cognition* 19: 448–458. Goldstein, A.G. et al. 1981. "Recognition memory for accented and unaccented voices". *Bulletin of the Psychonomic Society* 17: 217–220. Hanley, T.D. & J.C. Snidecor, 1967. "Some acoustic similarities among languages". *Phonetica* 17: 141–148. Hollien, H. & R. Schwartz, 2000. "Aural-perceptual speaker identification: Problems with

noncontemporary samples". *Forensic Linguistics* 7: 199–211. Ingemann, F. 1968. "Identification of the speaker's sex from voiceless fricatives." *Journal of the Acoustical Society of America* 44: 1142–1144. Künzel, H.J. 2000. "Effects of voice disguise on speaking fundamental frequency". *Forensic Linguistics* 7: 149–179. Künzel, H.J. 2001. "Beware of the 'telephone effect': The influence of telephone transmission on the measurement of formant frequencies". *Forensic Linguistics* 8: 80–99. McGehee, F. 1937. "The reliability of the identification of the human voice". *Journal of General Psychology* 17: 249–271. Masthoff, H. 1996. "A report on a voice disguise experiment". *Forensic Linguistics* 3: 160–167. Nolan, F. 2002. "The 'telephone effect' on formants: A response". *Forensic Linguistics* 9: 74–82. Papcun, G. et al. 1989. "Long-term memory for unfamiliar voices". *Journal of the Acoustical Society of America* 85: 913–925. 13 s. Rathborn, H.A. et al. 1981. "Voice recognition over the telephone". *Journal of Police Science and Administration* 9: 280–284. 5 s. Reich, A.R. et al. 1976. "Effects of selected vocal disguises upon spectrographic speaker identification". *Journal of the Acoustical Society of America* 60: 919–925. Reich, A.R. & J.E. Duke, 1979. "Effects of selected vocal disguises upon speaker identification by listening". *Journal of the Acoustical Society of America* 66: 1023–1028. Reich, A.R. 1981. "Detecting the presence of vocal disguise in the male voice". *Journal of the Acoustical Society of America* 69: 1458–1461. Saslove, H. & A.D. Yarmey, 1980. "Long-term auditory memory: speaker identification". *Journal of Applied Psychology* 65: 111–116. 6s. Yarmey, A.D. 1991. "Voice identification over the telephone". *Journal of Applied Social Psychology* 21: 1868–1876.