

FLST Course: Goals	
Common foundation for all MSc stude	onte
□ensure some breadth despite specializat	
Shared content for all students	
□also serves a social function	
Challenging!	
Expert lecturers for different topics	
Less "coherence" than in traditional lectu	res
But common themes, ideas will emerge	

This Week

FLST 2014-2015

Time	Mon 20.10.14	Tue 21.10.14	Wed 22.10.14	Thu 23.10.14	Fri 24.10.14
8.30-10.00	9.00-10.00 Technical advice for MSc study Thater	Map of the Field Uszkoreit	Ling Foundations (Syntax) Drenhaus	Ling Foundations (Syntax) Drenhaus	Ling Foundations (Phonetics/Tutorial) Trouvain
10.15- 11.45	Map of the Field Uszkoreit	Cognitive Foundations Crocker	Cognitive Foundations Crocker	Cognitive Foundations (Tutorial) Crocker	Ling Foundations (Tutorial) Delogu/Drenhaus
11.45- 14.15	Lunch break	Introduction to Winter Semester courses (12.00-13.00)	Lunch break	Lunch break	Lunch break
14.15- 15.45	Ling Foundations (Intro) Delogu	Ling Foundations (Phonetics/Phonology) Trouvain	Probability theory Singh	Probability theory Singh	DFKI tour / presentation Neumann
15.14- 16.45	Ling Foundations (Phonetics/Phonology) Trouvain	Ling Foundations (Morphology) Delogu	MMCI tour/project presentation Linn		



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FLST: Schedule

Week	Monday	Wednesday	Friday	Instructor	
Oct 20, 2013	Intro	Intro Week: Linguistics & Statistics			
Oct 27, 2013	Probability Thy	Probability Thy	Probability Thy	Greenberg	
Nov 3, 2013	Cognitive Fs	Cognitive Fs	Technological Fs	Crocker	
Nov 10, 2013	Cognitive Fs	Technological Fs	Technological Fs	Busemann	
Nov 17, 2013	FSM+Parsing	FSM+Parsing	FSM+Parsing	Uszkoreit	
Nov 24, 2013	FSM+Parsing	FSM+Parsing	FSM+Parsing	Uszkoreit	
Dec 1, 2013	Stat. Methods	Stat. Methods	Stat. Methods	Klakow	
Dec 8, 2013	Stat. Methods	Stat. Methods	Stat. Methods	Klakow	
Dec 15, 2013	Logic	Logic	Logic	Thater	
Dec 22, 2013		OUDIOT			
Dec 29, 2013		CHRISTMAS BREAK			
Jan 5, 2014	Semantics	Semantics	Semantics	Demberg	
Jan 12, 2014	Semantics	Semantics	Semantics	Demberg	
Jan 19, 2014	Speech	Speech	Speech	Moebius	
Jan 26, 2014	Speech	Speech	Speech	Moebius	
Feb 6, 2014			Exam		



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Lectures & Tutorials
 Material for each module is given by lecturers: There is <i>no</i> text Recommended reading, slides, and tutorials Attending lectures & doing tutorials is critical!
Lecture slides made available on the course web- page, sometimes there's a slight delay.
Participate in the course, and keep an eye on the web-pages (materials, resources, scheduling)
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Current topics

□ Map of the Field (Uszkoreit)

The big picture and shared goals of language science and technology

Linguistic Foundations (Delogu)

Goals of linguistic inquiry and theories

- descriptive, prescriptive, explanatory
- competence performance

□ Parts of Speech, Morphology

□Kinds of grammatical theories, goals/assumptions

Ambiguity across levels of linguistic representation

Current	topics

Cognitive Foundations (Crocker/Delogu)
 Evolution, Acquisition, Processing
 Language in Mind/Brain, modularity & localization
 Incrementality and ambiguity
 Kinds of empirical evidence, and experiment design
 Theories of processing & linking hypotheses

Technological Foundations (Busemann)
 Overview of application areas & task domains
 Kind of tools used, system design, resources, eval



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Current topics

□ Finite State Methods & Parsing (Uszkoreit)

Intro to FSMs and algorithms

Application to lexicon and morphology

□ Strategies, CYK, and Earley parsing

□PCFGs and Inside-Outside Algorithm, Evaluation

Statistical Language Models (Klakow)
 Language models, perplexity, trigrams, smoothing
 Classifiers (NB), Semi-supervised learning, EM

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Current topics	
 Semantics (Demberg) Meaning representations (logical, distributional) Logic, Inference, Entailment, Deduction Compositionality, Quantification 	
 Speech (Moebius) Synthesis: di-phone, unit-selection, HMMs Unknown words, prosody The Mary TTS system 	
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Exam structure

EXAM: Friday, FEBRUARY 6, 2015 8:00-10:00am (120 mins), Location TBA

Part 1: 9-10 short answer questions from all the modules (5 mins work)

□you must answer all = 50 mins

Part 2: Each module provides a longer question (15 mins work)

 \Box you must do 4 of these = 60 mins

□ Total time for exam 120 Minutes



