Welcome to the Grammar Formalisms wiki for the course LING 4429 / 6429!

Q. Why should linguistics students take this course?
A. Linguistics students should take this course if they want to do formal linguistics. Formal linguistics involves defining logic-like systems that derive/generate/license/... particular aspects of human language(s). This approach, pioneered by Noam Chomsky in the 1950s, aspires to objectivity and rigor. There are a variety of existing formalisms that each assume a (different) stock of basic theoretical devices.

The course reviews several of these formalisms, including transformational grammar & its successors as well as non-derivational formalisms like LFG, HPSG and categorial grammar. However, it is more than a retrospective. The course organizes around a handful of Grand Themes that recur across frameworks and across history. By learning to see how these themes manifest in alternative ways, you gain an ability to distinguish between notational disagreements and core issues in linguistic theory.

Q. Do I need to be a programmer/mathematician/syntactician/... to take this course?
A. No; this course is designed for linguistics students. There are no programming assignments. If you know what NP and VP stand for, you are in good shape.

Q. What are we studying? Where's the syllabus
A. It's on a separate Page, linked here: syllabus

Q. What are students graded on in this course?
A. See course requirements.

Q. How do I edit these pages? What is confluence?
A. You need Confluence Wiki Training
book: Stefan Müller's Grammatical Theory. ("M") Please download the 2015 open review version, not the bleeding edge 2016 version with broken citations. I urge all students to give at least $15 to LSP in support of their use of this book.

Tentative Schedule

Jan 28 -- first day

- review of syntax basics from chapter 1 of Alexander Williams' Arguments in Syntax and Semantics pp1–22
- or even M chapter 1 (optional; introduces German as a running example)

Feb 2 grammar as derivation. example: context-free grammar

- M chapter 2
  - answer comprehension Q 1 page 80 of M

Feb 4 the grand arc of Chomsky's thought


Feb 9 what transformations really are

- intro and section 3.1.1 of M chapter 3
- study some examples from Akmajian and Heny chapter 5

Feb 11 constraints on rule application

- chapter 6 of Green and Morgan

Valentine's Day Weekend

Feb 18 GPSG and slash passing

- M chapter 5
- at least pages 1–7 of Levine and Hukari 2006 The Unity of Unbounded Dependency Constructions

Feb 23 feature structures

- M chapter 6

Feb 25 constraints: OT Syntax

- Gereon Müller Optimality-Theoretic Syntax. chapter 26 of Syntax - theory and analysis: an international handbook, volume 2. edited by Tibor Kiss and Artemis Alexiadou.

Mar 1,3 LFG

- M chapter 7
Miriam Butt and Tracy Holloway King. Lexical-functional grammar. chapter 25 of the Kiss/Alexiadou handbook

Mar 8,10 Categorial Grammar

M chapter 8
chapter 2 of Categorial Grammars by Mary McGee Wood (reissued 2014)
possibly also some stuff from chapter 6 of Jacobson 2014 e.g. on Wrap

department graduate recruiting weekend

Mar 15,17 HPSG

M chapter 9

Mar 22,24 Dependency Grammar

M chapter 11
possibly also:
Timothy Osborne. Dependency Grammar. chapter 30 of the Kiss/Alexiadou handbook

spring break
TAG+ deadline "in april 2016"

Apr 5,7 Tree Adjoining Grammar

M chapter 12
excerpt from chapter 1 of Robert Frank Phrase Structure Composition and Syntactic Dependencies. 2002.
Kroch and Joshi 1985 The Linguistic Relevance of TAG

Apr 12,14 mild context-sensitivity

Joshi, Vijay Shanker & Weir 1990. The Convergence of Mildly Context-Sensitive Grammar Formalisms at least section 3 of Jason Baldridge and Frederick Hoyt. Categorial Grammar. chapter 31 of the Kiss/Alexiadou handbook

Apr 19,21 Stablerian Minimalist Grammars


Apr 26,28 hidden consensus or partisan bickering?

M §4.6.4
Mark Steedman On "the computation" . Chapter 18 of the Oxford Handbook of Linguistic Interfaces edited by Gilliam Ramchand and Charles Reiss. Click on Full Text then expand the plus next to Architecture.

May 3, 5, 10: functionalism, the alternative to formalism

chapter 4 of Kuiper and Nokes 2014
Course Requirements

To really understand how grammar formalisms differ from one another, students have to enter the debates that shaped them. LING 4429 promotes this entrance into debates by stimulating in-class discussion. However, the in-class component is just one of several steps that repeat throughout the semester:

1. everyone reads a common reading; each one speaks to some common theme that has significantly impacted the world of grammar formalisms.
2. students leave their own comment on the wiki
3. everyone comes together at the class meeting time; instructor clears up any misunderstanding
4. the discussion proceeds on the basis of students' comments

Students are graded both on the wiki comments that they leave pre-discussion, as well as their contributions to the discussion. This might be thought of as a "participation" grade in the traditional sense. However, an innovative aspect of this pedagogy is that students are graded yet a third time on their Synthesis papers. These register the new understanding that students reach on the basis of further reading & reflection after the in-class discussion. The second of these Synthesis papers is due at the end of the semester, whereas the deadline for the first Synthesis paper is tailored to each students' particular interest. The breakdown is:

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<td>pre-class wiki contributions</td>
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<td>in-class discussion contribution</td>
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<td>synthesis paper 1</td>
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Synthesis Paper Specifications

The synthesis paper is an opportunity to integrate what you have been learning into some kind of coherent whole. It typically acknowledges some issue in linguistic theory, points to consequences of that issue in particular grammar formalisms, and then makes a (constructive) comment about that issue. The content of this commentary is up to the student. Some possibilities are:

- implications of some particular construction in natural language as regards the choice between alternative formalisms
- analysis of the argumentation for or against some particular formalism. crucial issue: formalism itself vs analysis in that formalism.
- survey of one particular theme across approaches to grammar e.g.
  - lexical vs phrasal
  - functionalism vs formalism
  - derivation vs representation
  - aspirations for universality vs detailed coverage

The second half of Müller's book exemplifies an additional 10 topics that would all be appropriate for a Synthesis paper. These papers are graded according to a common rubric:

1. Is it clear what issue is under discussion?
2. Are the standard perspectives acknowledged? Or are key players missing?
3. Relevance to linguistics: is this connection solid?
4. Argumentation: is the commentary itself coherent and well-thought-through?
5. Synthesis: to what degree does the paper show a combination, development or maturation of ideas on the syllabus?
6. Writing: students are graded on how easy the paper is to read.

NB: the particular position that the student takes in this paper is not a part of the grade.