Prerequisite: LING 6020
Place & Time of Class Meetings: LNCO 2945 — TuTh 10.45am – 12.05pm
Instructor: Benjamin Slade
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Office: LNCO 2309
Office Hours: tba/by appt.
Linguistics Main Office Phone No.: 801-581-8047

Course Description: Introduction to the study of the meaning of phrases and clauses.

Course Overview/objectives: This course introduces students to the study of compositional semantics – the calculation of phrase-, sentence-, and discourse-level meaning based on the meaning of component parts and a set of formal rules – and other areas of linguistics that profit from explicit formalisation, e.g. computational properties of grammars. Topics include propositional logic, infinities, predicate logic, inferences, Montague grammar, lambda calculus, the Chomsky Hierarchy, push-down automata, Turing machines, and the joy of sets.

Course/Learning Outcomes/Objectives:

- Students will become familiar with certain central ideas of formal semantics and related areas.
- Students will gain a basic knowledge of how to provide formal representations of natural language meaning.
- Students will obtain enough grounding to be able to progress to study of more advanced topics in natural language semantics.

Teaching and learning methods: This course is lecture-based, with time allotted for student questions. Homework and exams are also designed to facilitate student acquisition of course material.

Course requirements: This course requires that students:

- Prepare for class (e.g. complete the reading assignments)
- Actively participate in class (e.g. ask questions, participate in class discussions)
- Complete assignments in a timely fashion (i.e. turn in your homework on time), and take two examinations in class (midterm & final)
Preliminary dates are found at the end of the syllabus in the “Projected Course Schedule” section.

See “Policies” section below for further details of course requirements as relate to workload, attendance, submission of assignments, and exam policy.

See further below in the Grading Policy section on how final grades are assigned.

**Required Texts:**

**Recommended Supplementary Texts:**

**POLICIES**

**Workload:** Learning in this course is cumulative; each new topic may presuppose that the student has acquired an understanding of concepts covered previously. Students are expected to prepare for lectures by reading the assigned material before the lecture in which the topic is discussed. It is expected that exercise assignments will be completed before they are discussed in lecture, to be handed in during the lecture itself. Extensions beyond the deadline will normally be given only with a medical certificate. If there are other exceptional circumstances, an extension might be considered, but must be requested before the due date. Workload is not a sufficient reason for an extension.

**Faculty and student responsibilities:** As indicated elsewhere in the syllabus, class attendance and participation are expected for all individuals involved in this class. This also requires that participation do the requisite preparation before class, including completing assigned readings and assignments. All participants are expected to maintain professional behaviour in the classroom setting. See below on the academic code of conduct.

**Academic code of conduct:** Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. Please familiarise yourself with the University’s Academic code of conduct accessible at [https://regulations.utah.edu/academics/6-400.php](https://regulations.utah.edu/academics/6-400.php), including descriptions of academic misconduct.

- **ACADEMIC MISCONDUCT** “includes, but is not limited to, cheating, misrepresenting one’s work, inappropriately collaborating, plagiarism, and fabrication or falsification of information, as defined further below. It also includes facilitating academic misconduct by intentionally helping or attempting to help another to commit an act of academic misconduct.” (see details in 6-400: I.B.2.)
Attendance Policy: Class attendance is required. You are responsible for the material presented in class lectures and for any handouts passed out in class; for your own benefit, come to class. But if you must miss a class, get notes and information from another student, do the reading, and do the assignments. Assignments are due on the day listed in the schedule, and no later, unless you make arrangements with me prior to the due date. You are not automatically dropped from your classes if you do not attend. You must officially drop your classes by the published deadline to avoid a “W” on your record.

Late submission of assignments: Turn in all assignments on time. Late assignments may be accepted (at the instructor’s discretion) but with a grade penalty. Assignments submitted late are unlikely to be returned to you in a timely manner, and they will not receive the same amount of feedback as an assignment handed in on time. Reading responses can only be submitted in class and may not be turned in late.

Make-up Exam Policy: You will be allowed to take a make-up only if your absence occurs as the result of an extreme and reasonably unforeseeable circumstance (e.g. sudden serious illness, major family crisis). Should you find yourself in such a predicament, you must contact the professor by phone or email before 8.00pm of the day before the exam date to request a make-up. Students who miss an exam but do not notify the professor as specified herein will receive a grade of zero (0).

Electronic devices: Please turn off and keep off all pagers, electronic games, MP3 and CD players (cassette decks etc.), and mobile/cellular devices (switch to “do not disturb” mode at the very least); as these disrupt the classroom environment. If you are using a tablet or laptop computer, please use it only for course-related matters; failure to do so will negatively affect your participation grade. As a courtesy, I allow use of electronic devices in this class SOLELY for the purposes of note-taking; if you use such devices for other purposes, I will ask you to put them away.

Learners of English as an Additional/Second Language: If you are an English language learner, please be aware of several resources on campus that will support you with your language development and writing. These resources include: the Department of Linguistics ESL Program (https://linguistics.utah.edu/esl-program/); the Writing Center (https://writingcenter.utah.edu/); the Writing Program (https://writing-program.utah.edu/); the English Language Institute (https://continue.utah.edu/eli/). Please let me know if there is any additional support you would like to discuss for this class.

Commitment to Diversity and Inclusion: Our classrooms provide opportunities to embrace diversity and promote equity. As educators, we commit to engaging all students in higher education. This commitment requires that we are willing to listen, learn and change; that our classrooms challenge assumptions; and that all members of our community are responsible for creating and maintaining a safe space for learning and growth. Respectful debate and civil disagreement are encouraged and expected; mocking, belittling, and bullying will not be tolerated.

Student names & personal pronouns: Class rosters are provided to the instructor with the student’s legal name as well as “Preferred first name” (if previously entered by you in the Student Profile section of your CIS account, which can be changed at any time). While CIS
refers to this as merely a preference, I will honour you by referring to you with the name and pronoun that feels best for you in class or on assignments. Please advise me of any name or pronoun changes so I can help create a learning environment in which you, your name, and your pronoun are respected. If you need any assistance or support, please reach out to the LGBT Resource Center [https://lgbt.utah.edu/resources/faculty_resources.php].

**Addressing Sexual Misconduct:** Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran’s status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action [https://www.oeo.utah.edu/], 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

**Undocumented Student Support Statement:** Immigration is a complex phenomenon with broad impact—those who are directly affected by it, as well as those who are indirectly affected by their relationships with family members, friends, and loved ones. If your immigration status presents obstacles to engaging in specific activities or fulfilling specific course criteria, confidential arrangements may be requested from the Dream Center. Arrangements with the Dream Center will not jeopardize your student status, your financial aid, or any other part of your residence. The Dream Center offers a wide range of resources to support undocumented students (with and without DACA) as well as students from mixed-status families. To learn more, please contact the Dream Center at 801.213.3697 or visit [https://dream.utah.edu/].

**Americans with Disabilities Act (ADA) Statement:** The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services [https://disability.utah.edu/], 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

**Veterans Center:** The University of Utah has a Veterans Support Center on campus, located in Room 161 in the Olpin Union Building [Hours: M-F 8-5pm]. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: [https://veteranscenter.utah.edu]. Please also let me know if you need any additional support in this class for any reason.

**Safety Policy:** The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit [https://safeu.utah.edu].
Wellness Statement: Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student’s ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness [https://www.wellness.utah.edu]; 801-581-7776.

Student Emergencies: In addition to the Center for Student Wellness, students who find themselves in difficult circumstances due to unforeseen events may also want to contact the Dean of Students [https://deanofstudents.utah.edu/], 270 Union Building, 801-581-7666. Please also contact your instructor if you find yourself in a situation which is likely to affect your academic performance.

Grading Policy (Evaluation Methods & Criteria):
Your grade for all requirements will be determined as follows: Each requirement will be worth a certain number of points. Your grade on each assignment will be determined on the basis of the percentage of points earned to points possible:

\[
\begin{align*}
100 - 93\% &= A = 4.0 \\
92.9 - 90\% &= B+ = 3.7 \\
91.9 - 90\% &= B = 3.3 \\
89.9 - 87\% &= B- = 3.0 \\
86.9 - 83\% &= C+ = 2.7 \\
85.9 - 83\% &= C = 2.3 \\
82.9 - 80\% &= C- = 2.0 \\
79.9 - 77\% &= D+ = 1.7 \\
76.9 - 73\% &= D = 1.3 \\
72.9 - 70\% &= D- = 0.7 \\
59.9 - 0\% &= E = 0.0
\end{align*}
\]

Your final grade will be determined in the same fashion.

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels.

The components involved in the calculation of the final course grade are:

**Homework Assignments (40% total).** Homework assignments are the most important component of this class not only for developing a deeper grasp of the class content but also in terms of your overall grade. Plan to devote a fair amount of time for these assignments, and make sure that what you submit is your best work. You may, and are encouraged to, work with your classmates on all assignments. However, you must write up your answers on your own and in your own words (failure to do so will be considered academic dishonesty). Note that this entails also that you may NOT share printed or electronic copies of any part of the actual write-up of your homework with other students (including students in your discussion group).

**A Midterm Exam (20%).** There will be a midterm examination in class.

**A Final Exam (30%).** There will be a final examination during the regular exam period.

**Participation (10%).** Attendance of classes and participation in class discussion.
Projected Course Schedule: (dates are approximate; change is likely)
[dS = de Swart; PtMW = Partee, ter Meulen, & Wall]

Week 1 / General Concepts. What is meaning? Formal methods in linguistics.
Reading: dS Ch1

Week 2 / Desiderata for a theory of Meaning
Reading: dS Ch2

Week 3 / Propositional logic
Reading: dS Ch3, PtMW 89–123

Week 4 / Sets; Relations; Predicate logic
Reading: PtMW 3–53, 137–165

Week 5 / Predicate logic cont.

Week 6 / Compositionality & Lambda calculus
Reading: PtMW 317–367

Week 7 / Compositionality & Lambda calculus (cont.); Determiners
Reading: PtMW 373–399

Week 8 – FALL BREAK (no class)

Week 9 / Discourse & Donkey Anaphora (perhaps)
Reading: dS 6

Week 10 / Review/catch-up + Midterm
Midterm on Oct 22 (tentative)

Week 11 / Intensionality; Worlds & Times
Reading: PtMW 403–429

Week 12 / Catch-up; Applications of lambda calculus to natural language analysis
Reading: PtMW 433–454

Week 13 / More applications of lambda calculus to natural language analysis: aspectual adverbials; conjunctions & quantifier particles
Reading: PtMW 455–482

Week 14 / Languages, grammars, & automata (Turing machines &c.); Chomsky Hierarchy/ Pushdown Automata, Context Free Grammars & Languages
Reading: PtMW 487–505

Week 15 / catch-up/flow-over
Reading: PtMW 507–525

Week 16 / catch-up/flow-over
Reading: PtMW 507–525

Final Exam: Wednesday, December 11, 2019 — 10.30am–12.30pm