

Add Course Request

Submitted on: 2013-02-27 11:17:03

1. COURSE SUBJECT	LING
2. COURSE NUMBER (OR PROPOSED NUMBER)	3410Q
3. COURSE TITLE	Semantics
4. INITIATING DEPARTMENT or UNIT	LING
5. NAME OF SUBMITTER	Jon Gajewski
6. PHONE of SUBMITTER	Phone: +1 860 486 1584
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9. UNIT NUMBER of CONTACT PERSON (U-BOX)	1145
10. PHONE of contact person	Phone: +1 860 486 1584
11. EMAIL of of contact person	Email: jon.gajewski@uconn.edu
12. Departmental Approval Date	11/13/2012
13. School/College Approval Date	02/05/2013
14. Names and Dates of additional Department and School/College approvals	
15. Proposed Implementation Date	Term: Fall, Year: 2013
16. Offered before next printed catalog is distributed?	No
17. General Education Content Area	
18. General Education Skill Code (W/Q). Any non-W section?	Q
19. Terms Offered	Semester: Spring Year: Every_Year
20. Sections	Sections Taught: 1
21. Student Number	Students/Sections: 25
22. Clarification:	
23. Number of Credits	3 if VAR Min: Max: credits each term
24. INSTRUCTIONAL PATTERN	
Usual 3 credit arrangement: 2 1.5-hour lectures or 3 1-hour lectures	
25. Will this course be taught in a language other than	No

English?	If yes, then name the language:
26. Please list any prerequisites, recommended preparation or suggested preparation: LING 2010Q The Science of Linguistics	
27. Is Instructor, Dept. Head or Unit Consent Required?	No
28. Permissions and Exclusions: Not open for credit to students who have passed LING 3510Q	
29. Is this course repeatable for credit?	No If yes, total credits allowed: Allow multiple enrollments in same term?
30. Grading Basis	Graded
31. If satisfactory/unsatisfactory grading is proposed, please provide rationale :	
32. Will the course or any sections of the course be taught as Honors? AsHonors	
33. Additional Details:	
34. Special Attributes:	
35. REGIONAL CAMPUS AVAILABILITY: There are no plans for the class to be taught at Regional Campuses. There are no faculty to our knowledge who would want to teach it.	
36. PROVIDE THE PROPOSED TITLE AND COMPLETE CATALOG COPY: LING 3410Q. Semantics Three credits. Prerequisite: LING 2010Q. Analysis of the semantics of natural languages in a generative framework: truth conditions, compositionality, quantification.	
37. RATIONALE FOR ACTION REQUESTED a) We are splitting our current course LING 3510Q Syntax and Semantics into two courses to expand our undergraduate offerings. e) LING 3510Q will be dropped from catalog.	
38. SYLLABUS: Online URL: (https://web2.uconn.edu/senateform/request/course_uploads/jog05007-1360246108-LING 3410Q Syllabus.rtf)	
39. Course Information: ALL General Education courses, including W and Q courses, MUST answer this question a. The main goal of this course is to give an introduction to semantics within the field of generative grammar. This involves applying the techniques of semantics of formal languages to natural languages. Formal analyses are given to predication, conjunction and quantification.	

b. The course requires two mid-terms and a final. The exams will involve short answer questions and problems to be solved. Weekly readings come primarily from a standard text in the field, *Meaning and Grammar*. The homeworks are five problem sets. The problem sets include technical exercises in set theory and functions, first order predicate logic and lambda calculus as well as the analysis of data sets.

c. Major themes include: learning how to give a formal truth-conditional analysis of natural language, the issue of compositionality (showing how the capacity to interpret an unlimited number of sentences can be captured in a finite brain), and analyses of specific topics, including predication, conjunction and quantification, while discussing the (un)suitability of tools like first order predicate logic for such analyses.

40. Goals of General Education: All Courses Proposed for a Gen Ed Content Area MUST answer this question

41. Content Area and/or Competency Criteria: ALL General Education courses, including W and Q courses, MUST answer this question.: Specific Criteria

- a. **Arts and Humanities:**
- b. **Social Sciences:**
- c. **Science and Technology:**
 - i. **Laboratory:**
- d. **Diversity and Multiculturalism:**
 - 43. **International:**
- e. **Q course:**

1. Include mathematics and/or statistics at or above the basic algebra level as an integral part of the course which is used throughout the course.

Giving a formal account of meaning in natural languages requires quite abstract tools. First, natural languages are modeled as formal languages (this is syntax). Then a mapping (a homomorphism) is set up from expressions of the formal language to a model. Models are constructed from set-theoretic objects. The meanings of sentences of the formal languages are associated with the class of models in which they are true. So, abstract mathematical tools such as set theory, functions and logic are essential to the endeavor.

2. Include use of basic algebraic concepts such as: formulas and functions, linear and quadratic equations and their graphs, systems of equations, polynomials, fractional expressions, exponents, powers and roots, problem solving and word problems. Formal abstract structures used in symbolic logic and other algebraic analyses are acceptable;

Languages are discrete combinatorial systems that involve little counting, so numerical methods are not central. However, as discussed above *formal abstract structures used in symbolic logic* are used heavily. Modern semantic methods derive from the tools of logic developed by philosophers. In addition to the tools mentioned in (1) above, semantics also employs Church's lambda calculus as a method of representing complex functions.

3. Require the student to understand and carry out actual mathematical and/or statistical manipulations, and relate them to whatever data might be provided in order to draw conclusions. Merely feeding numerical data into a program on a computer or a calculator to obtain a

numerical result does not satisfy this requirement. Technology should be viewed as a tool to aid understanding and not as a driver of content.

Students will be required to learn a set of recursive rules for interpreting the infinite well-formed and interpretable sentences of a language. They will have to perform explicit calculation of the truth-conditions of a sentence. The calculations begin with formal model-theoretic specifications of the meanings of words and proceed through rules of semantics composition to the assignment of model theoretic denotations to expressions of arbitrary syntactic complexity.

f. **W course:**

42. RESOURCES:

Does the department/school/program currently have resources to offer the course as proposed
YES

If NO, please explain why and what resources are required to offer the course.

43. SUPPLEMENTARY INFORMATION:

Please note that this course is an expansion of half of an existing Q course, LING 3510Q.

ADMIN COMMENT:

Senate approved Q10.14.13. GEOCQAppr_032613KCP.
NewQ_expansion1/2ofLING3510Qwhichwillbedropped_022713AP.

LING 3410Q Semantics

Oak Hall 338, TR, 10-11:30

Prof. Magdalena Kaufmann
349 Oak Hall, magdalena.kaufmann@uconn.edu
Office Hours: R 1-2:30

Course description

Analysis of the semantics of natural languages in a generative framework: truth conditions, compositionality, quantification.

Textbook: available at the UConn Co-op
Meaning and Grammar by Gennaro Chierchia and Sally McConnell-Ginet.
Published by MIT Press: Cambridge, MA. 2000, 2nd Edition.
The textbook will be supplemented by the instructor's lecture notes on formal issues: set theory, functions, propositional and predicate logic, and lambda-calculus. The lecture will be made available on HuskyCT.

Schedule

Week	Topic	Reading	Notes
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1	Foundational Issues	M&G ch 1	
2	Denotation and Truth	M&G ch 2, pp. 53-73	HW 1 due
3	Set Theory	Lecture Notes	
4	Functions and Properties of Relations	Lecture Notes	HW 2 due
5	Exam Review Exam 1		
6	Semantic Composition: Predication and Conjunction	M&G ch 2, pp. 73-97	
7	Predicate Logic	M&G ch 4 pp.113-147	
8			HW 3 due
SPRING BREAK!			
9	Quantification in English	M&G ch 4 pp. 147-187	
1 0			HW 4 due
1 1	Exam Review Exam 2		
1 2	Lambda-calculus	M&G ch 7 pp. 391-407	HW 5 due
1 3	Generalized quantifier theory	M&G ch 9	
1 4	Course Review		Bonus HW due

Course Requirements

Your performance in this course will be assessed through two midterms (20% each), a final exam (25%), five homework assignments (25%) and class participation (10%).

Homeworks are due at the beginning of class on Thursdays. Late homeworks are not accepted. However, there will be one bonus homework that you can use to replace your lowest homework score.

Please note the dates of the exams now in order to avoid conflicts. Make-up exam will be given only to student with legitimate, excused absences.