

LINGUISTICS (TRI-CO)

haverford.edu/linguistics

There are 7,000 languages in the world, and we're interested in studying all of them. Linguistics is the scientific study of language—we develop techniques to explore patterns that all human languages have in common and investigate the ways in which each is unique. Our explorations yield insights not only about languages, but also about the nature of the human mind.

Linguistics is also relevant to other disciplines, such as psychology, philosophy, mathematics, computer science, sociology and anthropology, and some of our students choose to double major with one of them.

LEARNING GOALS

- Examine the structural components of sound, form, and meaning, and the precise interplay between them.
- Interact with the field of linguistics through a series of foundation courses in linguistics theory and methodology.
- Hone analytical and argumentation skills, and prepare for future pursuits in any field to which such skills are essential, including psychology, neuroscience, philosophy, mathematics, computer science, computational linguistics, sociology, and anthropology.
- Apply theoretical and methodological tools to the analysis of linguistic data, particularly in forming and testing hypotheses, and arrive at conclusions that the data and arguments support.
- Understand how language influences the way we interact with each other and with the larger world around us.
- Investigate how people acquire their knowledge about language, how this knowledge interacts with other cognitive processes and how it varies across speakers and geographic regions.

MAJOR REQUIREMENTS

- One course from each of the following categories:
 - Sounds: LING H115 at Haverford (HC) or LING S045 at Swarthmore (SC)
 - Forms: LING H113 at HC or LING S050 at SC

- Meanings: LING H114 at HC or LING S040 or 026 at SC
- One course from the Structure of a Non-Indo-European Language series, typically LING H215, or LING H282 at HC, or LING S061, S062, S064 at SC.
- Three elective courses in linguistics or related fields. (For Linguistics and Language majors, instead of electives, they must study two different languages with three credits from each, with at least one credit at the Third-Year level for each of the two languages.)
- A one-credit senior thesis in the fall semester of the senior year. The thesis constitutes the comprehensive requirement for the major.

MINOR REQUIREMENTS

Students may minor in linguistics through Haverford by completing six credits in the following three areas:

Mandatory Foundation Courses (three credits)

- LING H113 or LING S050 (Introduction to Syntax)
- LING H114 or LING S040 (Introduction to Semantics)
- LING H115 or LING S045 (Phonetics and Phonology)

Structure of a Non-Indo-European Language Courses (choose one from the following samples of relevant courses)

- LING H215 (Structure of Colonial Valley Zapotec)
- LING H282 (Structure of Chinese)
- LING S060 (Structure of Navajo)
- LING S062 (Structure of American Sign Language)
- LING S064 (Structure of Tuvan)

Elective Courses (choose two from the following sample of relevant courses among many others):

- LING B101 or LING H101 (Introduction to Linguistics)
- LING H104 Topics in Introductory Programming: Language and Computation
- CMSC/LING H208 Speech Synthesis and Recognition

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- LING/ENGL H213 (Inventing [the] English)
- LING/PSYC H238 (The Psychology of Language)
- PHIL H253 (Analytic Philosophy of Language)
- PHIL H260 (Historical Introduction to Logic)
- LING/ANTH B281 (Language in the Social Context)
- LING/CMSC H308 (Computational Linguistics)
- LING/SPAN H365 (The Politics of Language in the Spanish-Speaking World)

The department accepts all linguistics courses offered at Swarthmore for minor credits for the appropriate categories.

SENIOR PROJECT

Majors in our department are recommended to take the Junior Seminar LING S090 (Advanced Research Methods in Linguistics), in the spring term of their junior year. This course is designed to expose students to the classic literature on the major subfields in linguistics, familiarizing them with theoretical frameworks, methodologies, and bibliographies, culminating in the selection of a potential thesis topic, working and reworking on a thesis abstract with references. Students are also encouraged to take an upper level seminar course in the subfield where they will most likely choose a thesis topic.

Linguistics majors write their thesis in the fall semester of their senior year. All Bi-Co linguistics majors should pre-register for LINGH399 in the spring of their junior year. They will be assigned an appropriate faculty advisor once they choose a thesis topic and the topic is approved. In the topic proposal, students need to list at least two relevant courses related to the topic. (LINGS090 could be listed as one of the two.) If their assigned faculty advisor is from Swarthmore, majors will then switch to the appropriate senior seminar section of LINGS100, which can be done in the beginning of the fall semester of their senior year.

Senior Project Learning Goals

As the capstone experience of the Linguistics major, the senior project represents the most rigorous academic undertaking by a senior, and reflects the achievement of the learning goals of the major.

Senior Project Assessment

Faculty members are assigned as first and second readers to each thesis after the senior major has decided on a topic in the beginning of the fall semester.

The senior thesis is evaluated on the following criteria:

Fundamentals:

- Does the student demonstrate a comprehensive understanding of elementary concepts in linguistics, such as the underlying goals of linguistic inquiry, basic units of linguistic analysis (phonemes, morphemes, constituency, entailment, etc.), and distinctions important to linguistics (prescriptive/descriptive, competence/performance, phoneme/allophone, form/function, etc.)? Does the student demonstrate familiarity with essential literature?

Tools and Methods:

- Does the student select and correctly implement methods and formal theories appropriate for their work? Does the student correctly use standard, professional linguistics formatting and notation for transcriptions, glosses, OT tableaux, syntactic structures, semantic interpretations, citations and references, etc.? Does the student correctly use standardly accepted technical jargon (“allomorph,” “adjunct,” “implicature,” etc.) rather than vague descriptions or nonstandard terminology? Does the student correctly use appropriate linguistics technology (Praat, ELAN, etc.)? At the level of technical details, does the student’s work look like it was written by a linguist (rather than, say, by a historian or chemist)?

Ethics:

- Does the student demonstrate a full understanding of best practices for responsible and ethical collection, storage, and use of data in ways that respect the relevant speakers and their communities and cultures? Does the student demonstrate a commitment to appropriate collaboration with speakers and communities? (N.B. This learning outcome may not be relevant to work that does not use primary data, in which case, this should normally be assessed as “N/A”.)

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General Scientific Methodology:

- *Data Collection and Presentation*
Does the student demonstrate an understanding of proper scientific methodology for collecting data (survey design, selection of participants, establishing controls, eliciting useful contrasts and paradigms, etc.)? Does the student organize data in meaningful ways that clearly demonstrate important patterns (minimal pairs, morphological paradigm tables, logical blocks of related utterances, etc.)?
- *Analysis*
Does the student construct useful, appropriate hypotheses to explain the observed patterns in the data? Are these hypotheses rigorously and clearly formulated? Does the student sufficiently explore logically plausible alternative hypotheses? Does the student convincingly argue for why their hypotheses are superior to the logical alternatives?

Critical Thinking Skills:

- *Advanced Literature*
Does the student draw upon relevant advanced literature in meaningful ways? Does the student demonstrate an understanding of crucial data, analyses, results, models, predictions, etc. from this advanced literature?
- *Innovation*
Is the student's work innovative in some way that makes it stand out as more than just superficial description and/or straightforward application of tried-and-true analytical tools? Does the student articulate novel and insightful claims about a specific language, language itself, or linguistics more broadly? Is the student's work noteworthy, at least in part, because of the student's particular insights?

Quality of Prose:

- *Coherence, Structure, Fluidity, etc.*
Is the student's prose professional and polished, in line with general standards of academic writing? Is the student's prose clear and logically structured? Are individual sentences coherent and grammatical? Do sentences and paragraphs flow fluidly from one to the next? Does the student's prose strike an appropriate balance between being concise and being sufficient? Would the

student's prose pass muster for publication in a journal?

REQUIREMENTS FOR HONORS

Honors will be granted, at the discretion of the faculty members, to those senior majors who have consistently distinguished themselves in major-related course work (typically with a GPA of 3.7 or higher), active and constructive participation in the intellectual life of the department, and an outstanding senior thesis. A senior major may receive high honors if deemed exceptional in all three areas.

STUDY ABROAD

Majors in the Linguistics Department can receive up to two elective credits for pre-approved courses taken at departments on the College's list of study abroad programs. Interested students should seek consultation with, and approval from, the Bi-Co chair of the department prior to studying abroad, and be ready to provide course descriptions during consultation and transcripts afterwards for proper credit counting towards the major.

PRIZES

The Linguistics Prize in Theory is awarded to the senior whose thesis best addresses theoretical issues in linguistics.

The Linguistics Prize in Description is awarded to the senior whose thesis best addresses descriptive issues in linguistics.

The Linguistics Prize in Application is awarded to the senior whose thesis best addresses application issues in linguistics.

FACULTY

At Haverford:

Jane Chandlee

Assistant Professor of Linguistics

Shizhe Huang (*on leave 2017-2018*)

C.V. Starr Professor of Asian Studies; Associate Professor of Chinese and Linguistics

Darrell Larsen

Visiting Assistant Professor of Linguistics

Brook Lillehaugen

Assistant Professor of Linguistics (Tri-College);

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Co-Chair of Tri-Co Department of
Linguistics (Chair for all Bi-Co matters)

At Swarthmore:

Melanie Drolsbaugh

Instructor, American Sign Language

Jeremy Fahringer

Laboratory Instructor

Theodore Fernald (*on leave 2017-2018*)

Professor of Linguistics

Emily Gasser

Visiting Assistant Professor of Linguistics

K. David Harrison

Professor of Linguistics

Patricia Irwin

Visiting Assistant Professor of Linguistics

Peter Klecha

Visiting Assistant Professor of Linguistics

Donna Jo Napoli

Professor of Linguistics and Co-chair

Jamie Thomas

Assistant Professor of Linguistics

Jonathan North Washington

Assistant Professor of Linguistics

AFFILIATED FACULTY

At Haverford:

Marilyn Boltz

Professor of Psychology

Ana López Sánchez

Associate Professor of Spanish

Danielle Macbeth

T. Wistar Brown Professor of Philosophy

Maud McInerney

Associate Professor of English

At Bryn Mawr:

Deepak Kumar

Professor of Computer Science

Amanda Weidman

Associate Professor of Anthropology

COURSES AT HAVERFORD

LING H101 INTRODUCTION TO LINGUISTICS

Darrell Larsen, Brook Lillehaugen
Humanities (HU)

An introductory survey of linguistics as a field. This course examines the core areas of linguistic structure (morphology, phonology, syntax, semantics), pragmatics, and language variation in relation to language change. The course provides rudimentary training in the analysis of language data, and focuses on the variety of human language structures and on the question of universal properties of language. (Offered Fall 2017 at Haverford and Bryn Mawr; Spring 2018 at Haverford)

LING H104 TOPICS IN INTRODUCTORY PROGRAMMING: LANGUAGE AND COMPUTATION

Jane Chandlee

Natural Science (NS); Quantitative (QU)
A general introduction to computer programming, in the context of its application to a specific discipline such as Data Analysis or Bioinformatics. Prerequisite for CMSC 107, along with discipline-specific analysis. Not for students who have completed CMSC 105 and/or 107. (Offered Spring 2018)

LING H113 INTRODUCTION TO SYNTAX

Darrell Larsen
Humanities (HU)

This course is a hands-on investigation of sentence structures in human language. This is a participation intensive course. Collectively, the class will develop an increasingly complex syntactic theory starting with basic assumptions and seeing where they lead. In the process, students will develop skills in observing syntactic patterns and analyzing these patterns in order to come to some generalizations on their own. (Offered Fall 2017)

LING H114 INTRODUCTION TO SEMANTICS

Staff
Humanities (HU)

This course focuses on the study of meaning in human language. We will explore semantic issues that arise from the lexicon, the sentences, and the discourse. Along the way, we will investigate not only the semantic structure of natural language but also pragmatic factors that affect language use. This is a participation-intensive course. In

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the process, students will not only learn the basic semantic theory but will also develop skills in observing semantic patterns and analyzing these patterns in order to come to some generalizations on their own. (Offered Spring 2018)

LING H115 PHONETICS AND PHONOLOGY

Jane Chandlee

Humanities (HU)

This course investigates the sound patterns found in human languages. Phonetics is the study of these patterns from a physical and perceptual perspective while phonology is the study of sound patterns from a cognitive perspective. Activities in the class will expose students to the methodologies used by both perspectives (articulatory description and acoustic analysis for phonetics and formal theoretical models for phonology) and show the necessity and utility of both approaches in understanding the nature of sound patterns in human language. (Offered Spring 2018)

LING H208 SPEECH SYNTHESIS AND RECOGNITION

Jane Chandlee

Natural Science (NA)

An introduction to the methodologies used in the automated recognition and synthesis of human speech, focusing on Hidden Markov Models in recognition and unit selection in synthesis. Students will get hands-on experience with implementing the various components of these systems to better understand the techniques, challenges, and open areas of research. Crosslisted: Computer Science, Linguistics; Prerequisite(s): CS105 and 106 OR CS107 OR BMC 110 and 206 OR instructor consent. (Offered Fall 2017)

LING H215 THE STRUCTURE OF COLONIAL VALLEY ZAPOTEC

Brook Lillehaugen

Humanities (HU)

A detailed examination of the grammar of Colonial Valley Zapotec, an indigenous language of Oaxaca, Mexico. Focus on hands-on research, paleography, morphological analysis, and translation of archival documents. Prerequisite(s): LING 113; and one of the following: LING 101, 114, 115, or instructor consent. (Offered Fall 2017)

LING H282 STRUCTURE OF CHINESE

Shizhe Huang

Social Science (SO)

This course is designed to acquaint students with both the syntactic and semantic structures of Mandarin Chinese and the theoretical implications they pose to the study of natural language. Students will have an opportunity to further their understanding of linguistic theories and to develop skills in analyzing a non-Indo-European language systematically. Knowledge of Chinese is NOT required. Prerequisite(s): At least two of the following: LING 101, 113, 114, or instructor consent. (Not offered 2017-18)

LING H325 COMPUTATIONAL LINGUISTICS

Jane Chandlee

Natural Science (NA)

An overview of key areas of computational linguistics, including natural language processing and computational modeling of morpho-phonological systems. Students will study and practice the primary algorithms and techniques used in the automated analysis of natural language data. Crosslisted: Computer Science, Linguistics; Prerequisite(s): CMSC 105 and CMSC 106 (or CMSC 107), OR CMSC B110 and CMSC B206, OR instructor consent. (Not offered 2017-18)

LING H399 SENIOR THESIS SEMINAR

Jane Chandlee, Brook Lillehaugen

Humanities (HU)

This seminar exposes students to linguistic research methods and guides them through the conceptualization of a topic, the research, and the writing of a senior thesis. All linguistics majors must write their senior thesis in this seminar or LING S100 or S195. (Offered Fall 2017)