LINGUISTICS (LING)

LING 001 Introduction to Linguistics
A general introduction to the nature, history and use of human language, speech and writing. Topics include the biological basis of human language, and analogous systems in other creatures; relations to cognition, communication, and social organization; sounds, forms and meanings in the world's languages; the reconstruction of linguistic history and the family tree of languages; dialect variation and language standardization; language and gender; language learning by children and adults; the neurology of language and language disorders; the nature and history of writing systems. Intended for any undergraduate interested in language or its use, this course is also recommended as an introduction for students who plan to major in linguistics.
For BA Students: Natural Science and Math Sector
One-term course offered either term
Activity: Lecture
1 Course Unit

LING 051 Proto-Indo-European Language and Society
Most of the languages now spoken in Europe, along with some languages of Iran, India and central Asia, are thought to be descended from a single language known as Proto-Indo-European, spoken at least six thousand years ago, probably in a region extending from north of the Black Sea in modern Ukraine east through southern Russia. Speakers of Proto-Indo-European eventually populated Europe in the Bronze Age, and their societies formed the basis of the classical civilizations of Greece and Rome, as well as of the Celtic, Germanic and Slavic speaking peoples. What were the Proto-Indo-Europeans like? What did they believe about the world and their gods? How do we know? Reconstruction of the Proto-Indo-European language, one of the triumphs of comparative and historical linguistics in the 19th and 20th centuries, allows us a glimpse into the society of this prehistoric people. In this seminar students will, through comparison of modern and ancient languages, learn the basis of this reconstruction – the comparative method of historical linguistics – as well as explore the culture and society of the Proto-Indo-Europeans and their immediate descendants. In addition, we will examine the pseudo-scientific basis of the myth of Aryan supremacy, and study the contributions of archaeological findings in determining the "homeland" of the Indo-Europeans. No prior knowledge of any particular language is necessary. This seminar should be of interest to students considering a major in linguistics, anthropology and archaeology, ancient history or comparative religion. (Also fulfills Cross-Cultural Analysis.)
For BA Students: History and Tradition Sector
Taught by: Noyer
Course not offered every year
Activity: Seminar
1 Course Unit
Notes: Freshman Seminar

LING 054 Bilingualism in History
This course introduces the foundations of linguistics - the scientific study of language - through exploration of multilingualism in the USA and in different societies around the world. Contacts between groups of people speaking different languages are documented from earliest records, and around the world it remains the norm to find more than one language in regular use in a single community. In this course we will see that multilingualism is a catalyst for linguistic change: sometimes languages are lost; sometimes new languages are created; sometimes the structure of a language is radically altered. We will consider: Which parts of linguistic structure are most susceptible to change under conditions of bilingualism? Does language contact - whether a result of trade, education, migration, conquest, or intermarriage - influence language structure in predictable ways? How do individual speakers handle multiple languages? How have attitudes to speakers of multiple languages changed through history? How have socio-historical events shaped the linguistic situation in the USA?
Course usually offered in fall term
Activity: Seminar
1 Course Unit
Notes: Freshman Seminar

LING 071 American Sign Language I
Introduction to learning and understanding American Sign Language (ASL); cultural values and rules of behavior of the Deaf community in the United States. Includes receptive and expressive readiness activities; sign vocabulary; grammatical structure; facial expressive, body movement, gestures signs; receptive and expressive fngerspelling; and deaf culture.
For BA Students: Language Course
One-term course offered either term
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 072 American Sign Language II
Increased communication skill in American Sign Language (ASL); cultural values and behavioral rules of the deaf community in the U.S.; receptive and expressive activities; sign vocabulary; grammatical structure; receptive and expressive fngerspelling and aspects of Deaf culture.
For BA Students: Language Course
One-term course offered either term
Prerequisite: LING 071 or Permission of the Instructor
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 073 American Sign Language III
Expanded instruction of American Sign Language (ASL). Receptive and expressive activities; sign vocabulary; grammatical structure; receptive and expressive fngerspelling; narrative skills, cultural behaviors; and aspects of Deaf culture. Abstract and conversational approach.
For BA Students: Language Course
One-term course offered either term
Prerequisite: LING 072 or permission of instructor
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center
LING 074 American Sign Language IV
Increases the emphasis on more abstract and challenging conversational and narrative range. Includes receptive and expressive readiness activities; sign vocabulary, grammatical structure; receptive and expressive fingerspelling; various aspects of Deaf culture and cultural behavior rules.
For BA Students: Last Language Course
One-term course offered either term
Prerequisite: LING 073 or permission of instructor
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 075 American Sign Language V
This is an advanced ASL course in which students expand their conversational and narrative range. While receptive readiness activities continue to be an important part of the class, the emphasis moves toward honing expressive sign skills through narrative presentation and ASL-only class discussions. Various aspects of Deaf culture and cultural behavior rules will be incorporated into the course. A large component of the course is a unit on Deaf history in which students read and discuss major events and famous deaf people via readings, film, class lectures and discussions, and other outside resources.
For BA Students: Advanced Language Course
One-term course offered either term
Prerequisite: LING 074 or permission of instructor
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 076 Deaf Literature, Performance, Art, and Film
This course is an advanced/conversational ASL course that explores several key topics related to Deaf culture and the Deaf experience's influence on literature (both written and signed), theatre, fine and visual arts, and film -both Deaf and hearing directed and acted. Using only ASL in class, students learn about various perspectives and approaches to each of the themes and topics of the course. Some questions to explore and answer in this course will be: What is Deaf Literature? The Deaf Lens: What is it? How is it different from a hearing perspective on film? How is Deafness expressed differently in each of the arts discussed in this course? Analysis and discussion will come from readings as well as viewings of various types of Deaf arts.
For BA Students: Advanced Language Course
Taught by: Draganač-Hawk
Course usually offered in spring term
Prerequisites: Ling 074 and prior language experience or permission from instructor.
Activity: Seminar
1 Course Unit

LING 077 ASL/Deaf Studies - ABCS
For this course, students will attend Pennsylvania School for the Deaf on a weekly basis where they will participate in and contribute to the school community via tutoring or other mutually agreeable activities. Students will also have formal class on a weekly basis with discussions and activities centering on reflection of community experiences through linguistic as well as cultural lenses. Additionally, drawing from the required Linguistics and other ASL/Deaf Studies coursework, students will develop an inquiry question and conduct preliminary community-based research to analyze sociolinguistic variations of ASL and Deaf cultural attitudes, behaviors, and norms. Ongoing reflections and discussions-formal and informal-on Deaf cultural/theoretical topics drawing from readings as well as community experiences will be integral to the course experience. LING 078, Topics in Deaf Culture and permission from the instructor, are required for this course.
For BA Students: Advanced Language Course
Taught by: Fisher
Prerequisites: Ling 078 and permission from instructor
Activity: Lecture
1 Course Unit

LING 078 Deaf Culture
This course is an advanced/conversational ASL course that explores several key topics related to Deaf Culture. Using only ASL in class, students will read and discuss books, articles, and films related to the following topics: What is Deaf Culture?, The History of the Deaf American, Communication Issues and Pathological Perspectives on Deafness, Deafness and Education, Deaf/Hearing Family Dynamics, and Deaf Theatre, Arts, and Poetry. Vocabulary, grammar, and idioms related to the topics will be presented through direct instruction as well as through the course of class conversation.
For BA Students: Advanced Language Course
Taught by: Fisher
One-term course offered either term
Prerequisite: LING 074 or permission from coordinator
Activity: Seminar
1 Course Unit
Notes: Offered through Penn Language Center

LING 081 Beginning Irish Gaelic I
Irish Gaelic, spoken primarily on the west coast of Ireland, is rich in oral traditions, song, poetry and literature. Knowledge of this language provides a foundation to understanding Celtic folklore and linguistics and also enhances the study of Anglo-Irish literature and history. The first-year course will include reading, conversation, listening and speaking.
Taught by: Blyn-LaDrew
Two terms. student may enter either term.
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 082 Beginning Irish Gaelic II
Taught by: Blyn-LaDrew
One-term course offered either term
Prerequisite: LING 081 or permission from instructor
Activity: Lecture
1 Course Unit
Notes: Offered through Penn Language Center
LING 083 Intermediate Irish Gaelic I
Taught by: Blyn-LaDrew
One-term course offered either term
Prerequisite: LING 082 or equivalent
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 085 Advanced Irish Gaelic I
Taught by: Blyn-LaDrew
One-term course offered either term
Prerequisite: LING 084 or equivalent
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 086 Advanced Irish Gaelic II
This course will emphasize reading of literary texts, and advanced aspects of grammar, composition, and conversation.
Taught by: Blyn-LaDrew
One-term course offered either term
Prerequisite: LING 085 or equivalent
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 088 History of the Irish Language
From downloadable lists of computer terminology in Irish to Ogam inscriptions chiseled in stone in the 5th century, the history of the Irish language reflects the history of the people themselves. This course outlines the language's changes through time and emergence from the unwritten Celtic, proto-Celtic, and Indo-European speech of its ancestors. Beginning in the modern period, when the very status of Irish as a living language has been hotly debated, the course will look backwards at the Celtic cultural revival of the late 19th century, the impact of the famine, nationalism, colonialism, the arrival of Christianity and the Roman alphabet, and the position of Irish within the Celtic branch of the Indo-European language family. Term papers may be based on fieldwork in the Irish-American community, or research. Audio and visual resources will supplement the lectures. Knowledge of Irish Gaelic is not required.
Taught by: Blyn-LaDrew
Course usually offered summer term only
Activity: Lecture
1 Course Unit
Notes: Offered through the Penn Language Center

LING 091 American Sign Language III/IV
Expanded instruction of American Sign Language (ASL). Includes receptive and expressive readiness activities; sign vocabulary; grammatical structure; receptive and finger-spelling; narrative skills; cultural behaviors; and aspects of Deaf culture. Increases the emphasis on more abstract and challenging conversational and narrative range. Abstract and conversational approach.
For BA Students: Last Language Course
Course not offered every year
Prerequisite: LING072 or by permission of instructor
Corequisites: Expanded instruction of ASL.
Activity: Lecture
2 Course Units
Notes: Offered by Penn Language Center; permit from Penn Language Center required for admission.

LING 102 Introduction to Sociolinguistics
Human language viewed from a social and historical perspective. Students will acquire the tools of linguistic analysis through interactive computer programs, covering phonetics, phonology and morphology, in English and other languages. These techniques will then be used to trace social differences in the use of language, and changing patterns of social stratification. The course will focus on linguistic changes in progress in American society, in both mainstream and minority communities, and the social problems associated with them. Students will engage in field projects to search for the social correlates of linguistic behavior, and use quantitative methods to analyze the results.
For BA Students: Society Sector
Taught by: Tamminga
Course usually offered in spring term
Activity: Lecture
1 Course Unit
Notes: Satisfies Quantitative Data Analysis

LING 103 Introduction to Language: Language Structure and Verbal Art
The purpose of this course is to explore the relationship between linguistic structure and the use of language for artistic purposes. The syllabus is organized as a sequence of units, each built around a particular theme. These include the sound structure of poetry (meter, rhyme, and other linguistic patterns in Jabberwocky, the Odyssey, Shakespeare, the Troubadours, and others); and how precise linguistic data can be used to solve an outstanding literary problem (determining the approximate date when Beowulf was composed); and the structure of folktales of various cultures and of narratives of everyday experience.
For BA Students: Arts and Letters Sector
Taught by: Ringe
Course usually offered in fall term
Activity: Lecture
1 Course Unit

LING 105 Introduction to Cognitive Science
Cognitive Science is founded on the realization that many problems in the analysis of human and artificial intelligence require an interdisciplinary approach. The course is intended to introduce students to the problems and characteristic concepts of Cognitive Science, drawing on formal and empirical approaches from the parent disciplines of computer science, linguistics, neuroscience, philosophy and psychology. The topics covered include Perception, Action, Learning, Language, Knowledge Representation, and Inference, and the relations and interactions between such modules. The course shows how the different views from the parent disciplines interact, and identifies some common themes among the theories that have been proposed. The course pays particular attention to the distinctive role of computation in such theories, and provides an introduction to some of the main directions of current research in the field.
Taught by: Brainard/Ungar
Course usually offered in fall term
Also Offered As: CIS 140, COGS 001, PHIL 044, PPE 140, PSYC 207
Activity: Lecture
1 Course Unit
Notes: This is a Formal Reasoning course.
LING 106 Introduction to Formal Linguistics
In this course, we study formal mathematical tools for the analysis of language that help us understand and classify the complex structures and rules that constitute language and grammar. These tools include set theory, formal language and automata theory, as well as aspects of logic, and will be applied to the syntax and semantics of natural language. In addition to learning something about formal tools for analyzing language, this will also enhance your general skills in analytical reasoning.
Course usually offered in fall term
Activity: Lecture
1 Course Unit
Notes: This is a Formal Reasoning course.

LING 115 Writing Systems
The historical origin of writing in Sumeria, Egypt, China, and Mesoamerica; the transmission of writing across languages and cultures, including the route from Phoenician to Greek to Etruscan to Latin to English; the development of individual writing systems over time; the traditional classification of written symbols (ideographic, logographic, syllabic, alphabetic); methods of decipherment; differences between spoken and written language; how linguistic structure influences writing, and is reflected by it; social and political aspects of writing; literacy and the acquisition of writing.
For BA Students: History and Tradition Sector
Taught by: Buckley
Course usually offered in fall term
Activity: Lecture
1 Course Unit

LING 120 Introduction to Speech Analysis
This course focuses on experimental investigations of speech sounds. General contents include: the fundamentals of speech production and perception; speech analysis tools and techniques; and topics in phonetic studies. The course consists of integrated lectures and laboratory sessions in which students learn computer techniques for analyzing digital recordings.
Taught by: Kuang
One-term course offered either term
Activity: Lecture
1 Course Unit
Notes: Satisfies Quantitative Data Analysis

LING 160 Introduction to African American and Latino English
An introduction to the use and structure of dialects of English used by the African American and Latino communities in the United States. It is an academically based service learning course. The field work component involves the study of the language and culture of everyday life and the application of this knowledge to programs for raising the reading levels of elementary school children.
Course usually offered in fall term
Activity: Lecture
1 Course Unit

LING 230 Sound Structure of Language
An introduction to phonetics and phonology. Topics include articulatory phonetics (the anatomy of the vocal tract; how speech sounds are produced); transcription (conventions for representing the sounds of the world’s languages); classification (how speech sounds are classified and represented cognitively through distinctive features); phonology (the grammar of speech sounds in various languages: their patterning and interaction) and syllable structure and its role in phonology.
Taught by: Noyer
Course usually offered in spring term
Also Offered As: LING 503
Prerequisites: Prerequisite: A prior course in linguistics or permission of instructor.
Activity: Lecture
1 Course Unit

LING 240 Structure of a Language
Designed to apply linguistic principles to the grammatical analysis of a particular language, this course focuses on a different language each time it is given, according to the decision of the instructor. It may be taken by students with prior knowledge of the language in question who have not taken previous courses in linguistics, and by students of linguistics who wish to explore a new language. The selected language will be announced prior to pre-registration for any semester in which it is given.
Course not offered every year
Activity: Lecture
1 Course Unit

LING 241 Language in Native America
This course is an introduction to linguistic perspectives on the languages native to the Americas (their nature and distribution, typological similarities and differences), with an emphasis on North America. The diverse languages of this region will be examined from the point of view of particular linguistic phenomena, such as phonology, morphology, and syntax; and in addition we will study their historical development and their place in culture, society, and thought.
Taught by: Buckley
Course not offered every year
Activity: Lecture
1 Course Unit

LING 242 Construct a Language
In this course, students construct their own language, one that is compatible with what is known about possible human languages. To this end, the course investigates language typology through lectures and examination of grammars of unfamiliar languages. Topics include language universals, points of choice in a fixed decision space, and dependencies among choices.
One-term course offered either term
Activity: Seminar
1 Course Unit
Notes: Students who have taken Ling 140: Construct a Language are not eligible to enroll in Ling 242.
LING 247 Structure of American Sign Language
This course covers the linguistic structure of American Sign Language (ASL), including its phonology (articulatory features, phonological constraints, nonmanuals), morphology (morphological constraints, compounds, incorporation, borrowing), and syntax (syntactic categories, basic phrase structure, common sentence types). Also discussed are the topics of classifiers and deixis. In keeping with the comparative perspective of linguistic theory, parallels and differences between ASL and other (primarily spoken) languages are pointed out where appropriate. Historical and sociolinguistic issues are addressed where they are relevant to elucidating linguistic structure. Though the course focuses on ASL, it necessarily touches on issues concerning sign languages more generally, notably the possible effects of modality (sign vs. speech) on linguistic structure and the implications of the signed modality for general linguistics.
Taught by: Fisher/Santorini
Prerequisite: Ling 001 or permission of instructor(s)
Activity: Lecture
1 Course Unit

LING 250 Introduction to Syntax
This course is an introduction to current syntactic theory, covering the principles that govern phrase structure (the composition of phrases and sentences), movement (dependencies between syntactic constituents), and binding (the interpretation of different types of noun phrases). Although much of the evidence discussed in the class will come from English, evidence from other languages will also play an important role, in keeping with the comparative and universalist perspective of modern syntactic theory.
Taught by: Santorini
Course usually offered in spring term
Activity: Lecture
1 Course Unit

LING 255 Formal Semantics and Cognitive Science
This course provides an introduction to the study of meaning in natural language. The first part of the course introduces a formal perspective on meaning in terms of truth conditions as well as the basic analytical tools necessary for this, primarily building on set theory and logic. The main part of the course covers a range of empirical investigations of phenomena related to meaning using experimental methods from psycholinguistics. Topics include a selection of issues on the semantics-pragmatics interface, such as conversational implicatures, presuppositions, reference resolution and perspective taking, and quantifier scope. Students will carry out a class project, possibly in groups, to develop (and, if possible, carry out) an experimental study of meaning-related phenomena of their own. Relevant tools for experimental design and the implementation of such studies will be introduced along the way. This provides students with the opportunity to engage in a scientific investigation of their own early on in their undergraduate career in a domain that is easily accessible and yet central to the general enterprise of the cognitive sciences.
Taught by: Schwarz
Course not offered every year
Activity: Lecture
1 Course Unit

Notes: NOTE TO PSYCHOLOGY MAJORS: Ling 255 can be counted towards the 'Additional Psych Courses', as specified in the Undergraduate Handbook. NOTE TO COGNITIVE SCIENCE MAJORS: Ling 255 counts towards Concentration 3: Language and Mind General Note: this course will be renumbered as Ling 455 in the future.

LING 270 Language Acquisition
An introduction to language acquisition in children and the development of related cognitive and perceptual systems. Topics include the nature of speech perception and the specialization to the native language; the structure and acquisition of words; children's phonology; the development of grammar; bilingualism and second language acquisition; language learning impairments; the biological basis of language acquisition; the role in language learning in language change. Intended for any undergraduate interested in the psychology and development of language.
Taught by: Yang
Course not offered every year
Activity: Lecture
1 Course Unit

LING 300 Tutorial in Linguistics
This tutorial allows students to deal in a concentrated manner with selected major topics in linguistics by means of extensive readings and research. Two topics are studied during the semester, exposing students to a range of sophisticated linguistic questions.
Taught by: Legate
Course usually offered in fall term
Prerequisites: Senior status or permission of the instructor. Majors only.
Activity: Seminar
1 Course Unit

LING 301 Conference
An independent study for majors in linguistics.
One-term course offered either term
Activity: Independent Study
1 Course Unit

LING 302 Linguistic Field Methods
Instruction and practice in primary linguistic research, producing a grammatical sketch and a lexicon through work with a native-speaker consultant and some reference materials. Consultant work is shared with LING 502.
Taught by: Buckley/Legate
Course not offered every year
Also Offered As: LING 502
Prerequisites: Ling 230 and Ling 250
Activity: Seminar
1 Course Unit

LING 310 History of the English Language
This course traces the linguistic history of English from its earliest reconstructable ancestor, Proto-Indo-European, to the present. We focus especially on significant large-scale changes, such as the restructuring of the verb system in Proto-Germanic, the intricate interaction of sound changes in the immediate prehistory of Old English, syntactic change in Middle English, and the diversification of English dialects since 1750.
Taught by: Ringe/Kroch
Course usually offered in fall term
Activity: Lecture
1 Course Unit
LING 354 Language and Game Theory
This course is an introduction to game-theoretic pragmatics. It focuses on aspects of meaning that follow from rational, strategic decision making. The course covers an introduction to the theory of games with an emphasis on coordination games and cooperation. We develop a game theoretic account of truth conditional semantics using zero-sum games. We then cover Gricean implicature; focal points and coordination; polysemy vs homophony; and a game account of reference tracking and pronoun interpretation.
Taught by: Clark
Course not offered every year
Activity: Lecture
1 Course Unit

LING 380 Introduction to Semantics
This course provides an introduction to formal semantics for natural language. The main aim is to develop a semantic system that provides a compositional interpretation of natural language sentences. We discuss various of the aspects central to meaning composition, including function application, modification, quantification, and binding, as well as issues in the syntax-semantics interface. The basic formal tools relevant for semantic analysis, including set theory, propositional logic, and predicate logic are also introduced.
Taught by: Schwarz
Course usually offered in fall term
Also Offered As: LING 580
Prerequisite: Ling 250
Activity: Lecture
1 Course Unit

LING 398 Senior Thesis
One-term course offered either term
Activity: Independent Study
1 Course Unit

LING 404 Morphological Theory
This course will explore some issues concerning the internal structure of words. After a brief introduction to some basic terms and concepts, we will discuss the interaction of morphology with phonology. We will look both at how morphology conditions phonological rules and how phonology conditions morphology. Then we will turn to the interaction of syntax and morphology. We will look at some problems raised by inflectional morphology, clitics and compounds. The main requirement for the class will be a series of homework exercises in morphological analysis and a short paper at the end of the semester.
Taught by: Embick
Course not offered every year
Activity: Lecture
1 Course Unit

LING 411 Old English
The main purpose of this course is to teach students to read Old English ("Anglo-Saxon"), chiefly but not exclusively for research in linguistics. Grammar will be heavily emphasized; there will also be lectures on the immediate prehistory of the language, since the morphology of Old English was made unusually complex by interacting sound changes. In the first eight weeks we will work through Moore and Knot's "Elements of Grammar" and learn the grammar; the remainder of the term will be devoted to reading texts.
Taught by: Kroch
Course not offered every year
Activity: Seminar
1 Course Unit

LING 440 Pidgins and Creoles
The origins and development of pidgins (languages of intercommunication that have evolved for practical reasons in situations of trade, conquest, or colonization, and spoken as second or auxiliary languages) and creoles (languages with native speakers that have developed from previous pidgins); relations between creoles and other languages; implications of creole studies for general theories of language and language change.
Course offered fall; even-numbered years
Activity: Lecture
1 Course Unit

LING 449 Language and Computation
The computational study of natural language and its implications for linguistic theories. Topics include finite state tools, computational morphology and phonology, grammar and parsing, computational models of language learning in children and machines.
Taught by: Yang
Course not offered every year
Activity: Seminar
1 Course Unit

LING 450 Languages in Contact
Multilingualism from a societal, individual, and linguistic point of view. The different types of contacts between populations and between individuals which give rise to multilingualism. Second-language acquisition and the problem of the "critical age." Cognitive and cultural aspects of multilingualism; applications to the teaching of languages. "Bidialectalism." Code-switching (alternation), interference and integration: the mutual influences of languages in contact. Political and social aspects of multilingualism.
Course offered fall; odd-numbered years
Activity: Lecture
1 Course Unit

LING 470 Narrative Analysis
The course will develop our understanding of narrative structure on the basis of oral narratives of personal experience, told by speakers from a wide range of geographic backgrounds and social classes. It will link the principles governing oral narratives to the narratological examination of myth, literature and film by Propp, Greimas, Prince, Chatman, and others. The principles that emerge from the study of oral narrative will be re-examined in literary narrative, including Scandinavian, Greek and Hebrew epics, medieval romances, film, and modern novels, with attention to the differences between vernacular, literary and academic style. The class will then consider the work of psychologists on how narratives are remembered and understood, based on the causal network theory of Trabasso, and apply these principles to narratives written to teach children to read, particularly those designed to reflect the cultural and linguistic framework of African American children.
Course not offered every year
Also Offered As: AFRC 262, FOLK 470, LALS 260
Activity: Seminar
1 Course Unit
LING 500 Research Workshop
This course is intended for advanced graduate students who are interested in developing a research paper. Each student will present his or her topic several times during the semester as the analysis develops, with feedback from the instructor and other students to improve the organization and content of the analysis. The goal is an end product appropriate for delivery at a national conference or submission to a journal.
Course usually offered in fall term
Activity: Seminar
1 Course Unit

LING 502 Linguistic Field Methods
Instruction and practice in primary linguistic research, producing a grammatical sketch and a lexicon through work with a native-speaker consultant and some reference materials. Consultant work is shared with LING 302. Each student will write a final paper on some aspect of the language.
Taught by: Buckley/Legate
Course not offered every year
Also Offered As: LING 302
Prerequisites: LING 530 and Ling 550
Activity: Seminar
1 Course Unit

LING 503 Sound Structure of Language
An introduction to articulatory and acoustic phonetics; phonetic transcription; basic concepts and methods of phonological analysis.
Taught by: Noyer
Course usually offered in spring term
Also Offered As: LING 230
Activity: Lecture
1 Course Unit

LING 505 Research Topics
A reading course on specialized topics in linguistics. Arranged by instructor.
One-term course offered either term
Activity: Independent Study
1 Course Unit

LING 510 Introduction to Historical and Comparative Linguistics
Taught by: Ringe
Course usually offered in fall term
Activity: Lecture
1 Course Unit

LING 511 Language Variation & Change
Speech communities as a focus for the understanding of language evolution and change: language variation in time and space. The relationship between language structure and language use; between language change and social change. Populations as differentiated by age, sex, social class, race, and ethnicity, and the relationship of these factors to linguistic differentiation.
Taught by: Tamminga
Course usually offered in spring term
Activity: Lecture
1 Course Unit

LING 515 Dynamics of Language
This course introduces the tools, techniques, as well as current research on the approach to language as a dynamical system, which seeks to fruitfully integrate linguistic theory, psycholinguistics, corpus linguistics, and historical linguistics through the means of mathematical modeling. Topics include: string processing, dynamical systems and stability, stochastic processes, mathematical models of population dynamics, and dynamical models of language learning, processing, and change.
Taught by: Yang
One-term course offered either term
Prerequisite: Ling 510
Activity: Seminar
1 Course Unit

LING 520 Phonetics I
Speech: its linguistic transcription, its quantitative physical description, and its relationship to the categories and dimensions of language structure and use. The physical basis of speech: acoustics, vocal tract anatomy and physiology, hearing and speech perception, articulation and motor control. Phonetic variation and change. Prosody: stress, intonation, phrasing speech rate. Phonetic instrumentation, the design and interpretation of phonetic experiments, and the use of phonetic evidence in linguistic research, with emphasis on computer techniques. Introduction to speech signal processing. Speech technology: introduction to speech recognition, text-to-speech synthesis, speech coding. This course will emphasize the phonetics of natural speech, and its connections to issues in other areas of linguistics and cognitive science.
Taught by: Liberman/Kuang
Course usually offered in fall term
Prerequisites: An introductory course in linguistics, or consent of instructor
Activity: Lecture
1 Course Unit

LING 521 Phonetics II
This is a methodology course, which focuses on how to conduct phonetics research using very large speech corpora. Topics include scripting and statistical techniques, automatic phonetic analysis, integration of speech technology in phonetics studies, variation and invariability in large speech corpora, and revisiting classic phonetic and phonological problems from the perspective of corpus phonetics.
Taught by: Kuang/Liberman
Course usually offered in spring term
Prerequisite: LING 520
Activity: Lecture
1 Course Unit

LING 525 Computer Analysis and Modeling of Biological Signals and Systems
A hands-on signal and image processing course for non-EE graduate students needing these skills. We will go through all the fundamentals of signal and image processing using computer exercises developed in MATLAB. Examples will be drawn from speech analysis and synthesis, computer vision, and biological modeling.
Taught by: Liberman
Course usually offered in fall term
Also Offered As: CIS 558
Activity: Lecture
1 Course Unit
LING 530 Phonology I
First half of a year-long introduction to the formal study of phonology. Basic concepts in articulatory phonetics; the distribution of sounds (phonemes and allophones); underlying and surface forms, and how to relate them using both ordered-rule and surface-constraint approaches. The survey of theoretical topics in this term includes distinctive features (context, organization, underspecification); the autosegmental representation of tone; and the theory of phonological domains and their interaction with morphological and syntactic constituency. Emphasizes hands-on analysis of a wide range of data.
Taught by: Buckley
Course usually offered in spring term
Prerequisite: LING 530 or equivalent
Activity: Lecture
1 Course Unit

LING 531 Phonology II
Second half of a year-long introduction; continues LING 530. Topics to be surveyed include syllable structure and moraic theory; the prosodic hierarchy; the properties and representation of geminates; templatic and prosodic morphology; reduplication and emergence of the unmarked; and metrical phonology (properties of stress, foot typology, and issues of constituency). Emphasizes hands-on analysis of a wide range of data.
Taught by: Noyer
Course not offered every year
Prerequisite: LING 531 or equivalent
Activity: Lecture
1 Course Unit

LING 538 Computational Methods in Linguistic Research
This course aims to provide students with the knowledge and skills needed to use computational techniques to facilitate linguistic research. It introduces the computer representation of linguistic data, the construction of linguistic databases, ways of searching for and extracting information of interest, and ways of generating useful displays of the results. Topics covered include the representation of text on computers (multilingual character encoding, mark-up schemes, means of converting among representations); regular expressions and their use in searching; context free grammars; basic parsing techniques; properties and uses of databases; approaches to annotation; and sorting as a tool for searching and organizing data.
Course not offered every year
Activity: Seminar
1 Course Unit

LING 545 Mathematical Foundations for Language and Communication Sciences I
This two-semester sequence will provide basic mathematical modeling and algorithmic tools for interdisciplinary research in animal, human or machine communication, in association with the IRCS IGERT program. Topics include signal processing, statistical modeling and machine learning, information theory, game theory, and formal language theory. The courses will be taught in a laboratory setting, and will emphasize practical skills as well as basic concepts.
Taught by: Liberman
Two terms. student may enter either term.
Also Offered As: COGS 501, PSYC 501
Activity: Lecture
1 Course Unit

LING 546 Mathematical Foundations of Language Communication II
This two-semester sequence will provide basic mathematical modeling and algorithmic tools for interdisciplinary research in animal, human or machine communication, in association with the IRCS IGERT program. Topics include signal processing, statistical modeling and machine learning, information theory, game theory, and formal language theory. The courses will be taught in a laboratory setting, and will emphasize practical skills as well as basic concepts.
Taught by: Liberman
Two terms. student may enter either term.
Also Offered As: PSYC 646
Activity: Lecture
1 Course Unit

LING 550 Syntax I
A general introduction at the graduate level to the analysis of sentence structure. The approach taken is that of contemporary generative-transformational grammar.
Taught by: Kroch
Course usually offered in fall term
Activity: Lecture
1 Course Unit

LING 551 Syntax II
The second half of a year-long introduction to the formal study of natural language syntax. Topics to be covered include grammatical architecture; derivational versus representational statement of syntactic principles; movement and locality; the interface of syntax and semantics; argument structure; and other topics. The emphasis is on reading primary literature and discussing theoretical approaches, along with detailed case-studies of specific syntactic phenomena in different languages.
Taught by: Legate
Course usually offered in spring term
Prerequisite: LING 550 or permission of instructor
Activity: Lecture
1 Course Unit

LING 556 Historical Syntax
Introduction to the study of the syntax of languages attested only in historical corpora. The course will cover methods and results in the grammatical description of such languages and in the diachronic study of syntactic change.
Taught by: Kroch
Course not offered every year
Prerequisite: LING 551 or the equivalent
Activity: Seminar
1 Course Unit

LING 560 The Study of the Speech Community: Field Methods
For students who plan to carry out research in the speech community. Techniques and theory derived from sociolinguistic studies will be used to define neighborhoods, enter the community, analyze social networks, and obtain tape-recorded data from face-to-face interviews. Students will work in groups and study a single city block. One-term course offered either term
Activity: Seminar
1 Course Unit
LING 562 Quantitative Study of Linguistic Variation
This course provides students with the opportunity to hone their statistical, computational, and organizational skillsets while conducting original linguistic research on data gathered in continuing fieldwork in the speech community. Topics include forced alignment and vowel extraction, auditory and automated variable coding, the application of linear and logistic regression, and techniques for effective data visualization.
Taught by: Tamminga
Course offered fall; odd-numbered years
Prerequisites: LING 560 and either STAT 500 or STAT 501 (or permission of instructor).
Activity: Seminar
1 Course Unit

LING 563 Sound Change in Progress
The study of current sound changes in the speech community through instrumental means. Causes of linguistic diversity and consequences for speech recognition.
Course not offered every year
Prerequisite: LING 520
Activity: Seminar
1 Course Unit

LING 568 Dialect Geography
This course traces the origins and characteristics of regional dialects. Beginning with a survey of the traditional dialectology literature beginning in the 19th century, we will discuss the influences of social, political, and physical geography on language change. We will then move on to examine the foundations of North American English dialect regions and the large-scale language changes that underlie their development. Students enrolled in 368 will complete a final project on American English accents; students enrolled in 568 will write an original research paper on a non-English dialect topic of their choosing.
Taught by: Tamminga
Course not offered every year
Also Offered As: LING 368
Activity: Lecture
1 Course Unit

LING 570 Developmental Psycholinguistics
The generative literature on language acquisition has produced many accurate and insightful descriptions of child language, but relatively few explicit accounts of learning that incorporate the role of individual experience into the knowledge of specific languages. Likewise, the experimental approach to language development has identified processes that could provide the bridge between the data and the grammar, but questions remain whether laboratory findings can sufficiently generalize to the full range of linguistic complexity. This course is an overview of research in language acquisition with particular focus on the important connection between what children know and how they come to know it.
Taught by: Yang
Course usually offered in spring term
Activity: Seminar
1 Course Unit

LING 580 Semantics I
This course provides an introduction to formal semantics for natural language. The main aim is to develop a semantic system that provides a compositional interpretation of natural language sentences. We discuss various of the aspects central to meaning composition, including function application, modification, quantification, and binding, as well as issues in the syntax-semantics interface. The basic formal tools relevant for semantic analysis, including set theory, propositional logic, and predicate logic are also introduced.
Taught by: Schwarz
Course usually offered in fall term
Also Offered As: LING 380
Prerequisite: LING 550
Corequisite: LING 550
Activity: Lecture
1 Course Unit

LING 581 Semantics II
The first part of the course expands the system from LING 580 to include intensional contexts. In particular, we discuss analyses of modals, attitude verbs, and conditionals, as well as the scope of noun phrases in modal environments. The second part of the course discusses a selection of topics from current work in semantics, such as the semantics of questions, tense and aspect, donkey anaphora, indefinites, genericity, degree constructions, events and situations, domain restriction, plurality and focus.
Taught by: Schwarz
Course usually offered in spring term
Prerequisite: LING 551
Corequisite: LING 550
Activity: Lecture
1 Course Unit

LING 585 Game Theoretic Pragmatics
A great deal of linguistic meaning can be explained if we conceive of language as being a signaling system used by rational agents. Game theory provides an explicit mathematical account of rational, strategic interaction. This course will lay out the fundamentals of game theory, evolutionary game theory and multi-agent systems necessary to develop a theory of "radical pragmatics." We will discuss game theoretic models of implicature; presupposition and accommodation; reference tracking; scalar implicature as well as a number of other phenomena.
Taught by: Clark
Course not offered every year
Activity: Lecture
1 Course Unit

LING 586 Pragmatics Workshop
Taught by: Clark
Course usually offered in fall term
Activity: Seminar
1 Course Unit

LING 595 Game Theoretic Pragmatics
A great deal of linguistic meaning can be explained if we conceive of language as being a signaling system used by rational agents. Game theory provides an explicit mathematical account of rational, strategic interaction. This course will lay out the fundamentals of game theory, evolutionary game theory and multi-agent systems necessary to develop a theory of "radical pragmatics." We will discuss game theoretic models of implicature; presupposition and accommodation; reference tracking; scalar implicature as well as a number of other phenomena.
Taught by: Clark
Course not offered every year
Activity: Lecture
1 Course Unit

LING 596 Pragmatics Workshop
Taught by: Clark
Course usually offered in fall term
Activity: Seminar
1 Course Unit

LING 603 Topics in Phonology
Topics are chosen from such areas as featural representations; syllable theory; metrical structure; tonal phonology; prosodic morphology; interaction of phonology with syntax and morphology.
Taught by: Buckley/Noyer
Course not offered every year
Prerequisite: LING 530-531
Activity: Seminar
1 Course Unit
LING 608 Topics in Semantics and Pragmatics  
Taught by: Clark/Schwarz  
Course not offered every year  
Activity: Seminar  
1 Course Unit

LING 610 Seminar in Historical and Comparative Linguistics  
Selected topics either in Indo-European comparative linguistics or in historical and comparative method.  
Taught by: Ringe  
One-term course offered either term  
Also Offered As: GRMN 602  
Activity: Seminar  
1 Course Unit

LING 615 Comparative Indo-European Grammar  
A survey of phonology and grammar of major ancient Indo-European languages and the reconstruction of Proto-Indo-European. A knowledge of at least one ancient Indo-European language is required.  
Taught by: Ringe  
Two terms. student must enter first term.  
Activity: Seminar  
1 Course Unit

LING 616 Comparative Indo-European Grammar II  
A survey of phonology and grammar of major ancient Indo-European languages and the reconstruction of Proto-Indo-European. A knowledge of at least one ancient Indo-European language is required.  
Taught by: Ringe  
One-term course offered either term  
Activity: Seminar  
1 Course Unit

LING 620 Topics in Phonetics  
Taught by: Liberman/Kuang  
Course not offered every year  
Activity: Seminar  
1 Course Unit

LING 630 Seminar in Morphology  
Readings in modern morphological theory and evaluation of hypotheses in the light of synchronic and diachronic evidence from various languages.  
Taught by: Noyer/Embick  
Course not offered every year  
Prerequisite: LING 530  
Activity: Seminar  
1 Course Unit

LING 650 Topics in Natural-Language Syntax  
Detailed study of topics in syntax and semantics, e.g., pronominalization, negation, complementation. Topics vary from term to term.  
Taught by: Kroch/Legate  
One-term course offered either term  
Prerequisite: LING 551 or permission of instructor  
Activity: Seminar  
1 Course Unit

LING 653 Topics in the Syntax-Semantics Interface  
Topics in the Syntax-Semantics Interface  
Taught by: Kroch  
Course usually offered in fall term  
Activity: Seminar  
1 Course Unit

LING 660 Research Seminar in Sociolinguistics  
Students approaching the dissertation level will explore with faculty frontier areas of research on linguistic change and variation. Topics addressed in recent years include: experimental investigation of the reliability of syntactic judgments; the development of TMA systems in creoles; transmission of linguistic change across generations. The course may be audited by those who have finished their course work or taken for credit in more than one year.  
Course not offered every year  
Activity: Seminar  
1 Course Unit

Notes: This course will have different topics each term.

LING 662 Topics in Experimental Sociolinguistics  
Activity: Seminar  
1 Course Unit

LING 670 Topics in the Cultural Evolution of Language  
Readings in the cultural evolution of language. This encompasses research on the contribution of processes of cultural change to the emergence of language in the human species, the emergence of new languages, and language change viewed as a cultural-evolutionary process. There will be an emphasis on research employing empirical methods, particularly experimentation. Otherwise focus varies from term to term.  
Taught by: Roberts  
Activity: Seminar  
1 Course Unit

LING 999 Independent Study and Research  
One-term course offered either term  
Activity: Independent Study  
1 Course Unit  
Notes: Student must submit brief proposal for approval. May be repeated for credit.