

# LIN

## Linguistics

### LIN 521: Syntax I

A study of formal grammar as one aspect of our knowledge of language. Concepts and elements of modern syntactic analysis are introduced and motivated using a variety of grammatical phenomena and processes, across a wide range of languages. Prerequisite: Enrollment in LIN program or permission of instructor

*0-3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 522: Phonetics

A study of articulatory phonetics and the international phonetic alphabet, with intensive practice in phonetic transcription from a wide variety of languages. Acoustic phonetics, speech perception, and the applications of phonetics to foreign language teaching.

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 523: Phonology I

An introduction to the formal study of sound patterns. Problems from various languages serve as the basis for developing a theory of the representation of sound structure. Prerequisite: Enrollment in LIN program or permission of instructor

*0-3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 524: TESOL Pedagogy: Theory and Practice (Methods I)

Theory and practical methodology of language and literacy instruction and assessment to children and adolescents for whom English is not their first language, in alignment with current state, national, and professional standards. Inquiry into instructional approaches, standard-based and data-driven lesson planning, and reflective practices in the teaching and assessment of speaking, listening, reading, and writing. Review and evaluation of resources and technologies. 3 credits, letter graded (A, A-, B+, etc)

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 525: Contrastive Analysis

A survey of linguistic typology and a comparison of various languages as a basis for understanding the errors made by language learners and devising strategies for teaching a foreign language. May be crosslisted with CEL 551.

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 526: Analysis of an Uncommonly Taught Language

Working from primary and secondary sources, students construct an outline of the phonology, morphology, and syntax of a language previously unknown to them.

*3 credits, Letter graded (A, A-, B+, etc.)  
May be repeated for credit.*

### LIN 527: Structure of English

A description of the major sentence elements, subsystems, and productive grammatical processes of English. The justification of grammatical categories, interaction between systems and processes, and notions of standard and correctness are discussed with a view to their application in the ESL classroom.

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 529: TESOL Pedagogy: Language and Literacy Development through the Content Areas (Methods II)

Content-based language and literacy instruction and assessment to children and adolescents for whom English is not their first language, in alignment with current state, national, and professional standards. Teacher candidates design standard-based and data-driven curricular modules for teaching language through mathematics, the sciences and the social studies, engage in reflective and collaborative practices, and evaluate web-based technologies. 3 credits, letter graded (A, A-, B+, etc)

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 530: Introduction to General Linguistics

An introduction to modern theoretical and applied linguistics, including phonology, morphology, syntax, language acquisition, historical linguistics, and sociolinguistics.

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 532: Second Language Acquisition

Study of the acquisition of a second language by children and adults. The focus is on data; the systematicity of the learner's errors, the ease of acquisition in childhood, etc., the adequacy of theories (e.g. Interlanguage processes, the monitor model, the critical period) to explain data, and the reliability of methods of obtaining data. Students conduct an empirical study testing a current hypothesis.

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 535: Historical Linguistics

A study of linguistic change. Some general topics to be discussed are the genetic classification of languages; language families, language, and prehistory; reconstruction; types of sound change; types of semantic change; borrowing.

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 537: Computational Linguistics I

A hands-on introduction to practical aspects of computational linguistics. Students learn how to perform common tasks such as tagging and tokenization with a state-of-the-art programming language. Topics include basic data structures and algorithms, n-gram models, regular expressions, and corpus linguistics.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 538: Statistics for Linguists

A hands-on introduction to statistical methods in linguistics using R@. Topics covered include aggregation and summary, descriptive statistics, data visualization, hypothesis testing, regression analysis, and an introduction to hierarchical modeling. Students will gain experience with quantitative analysis of real-world linguistic data sets, including corpus data and experimental data, with emphasis on a connection to students' own theoretical research.

*0-3 credits, Letter graded (A, A-, B+, etc.)  
May be repeated for credit.*

### LIN 539: Mathematical Methods in Linguistics

An overview of the mathematical foundations of theoretical and computational linguistics. Topics covered include set theory, morphisms, logic and model theory, algebra, lattices, lambda calculus, probability theory, information theory, and basics of formal language theory. A strong emphasis is put on the linguistic application of the mathematical concepts in the student and analysis of natural language data

*0-3 credits, Letter graded (A, A-, B+, etc.)  
May be repeated for credit.*

### LIN 541: Bilingualism

Study of the social, linguistic, educational, and psychological aspects of bilingualism.

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 542: Sociolinguistics

An introduction to major topics in sociolinguistics, including variation theory, language attitudes, language planning, language change, and pidgins and creoles. Prerequisite: Enrollment in TESOL or LIN program or permission of instructor

*3 credits, Letter graded (A, A-, B+, etc.)*

### LIN 544: Language Acquisition and Literacy Development

In-depth exploration of the theories of literacy and language development of native English speakers and students who are English

language learners pre-school through grade 12. The development and assessment of literacy skills among children at various stages of learning development and across disciplines will be examined. Attention will also be given to children with special needs and the integration of technology in the development of literacy skills.

*3 credits, Letter graded (A, A-, B+, etc.)*

### **LIN 550: Selected Topics in Linguistics**

Topics are announced each semester. The course may be repeated for credit if topic differs.

*3 credits, Letter graded (A, A-, B+, etc.)  
May be repeated for credit.*

### **LIN 555: Error Analysis**

Study of the systematic errors made by foreign language learners and the potential of various linguistic theories to predict and account for these errors.

*3 credits, Letter graded (A, A-, B+, etc.)*

### **LIN 571: TESOL Pedagogy: Curriculum Design and Evaluation**

An in-depth study of curriculum design and evaluation with a focus on needs analysis, goals and objectives, approaches to language learning and teaching, assessment, resources, and program evaluation.

*3 credits, Letter graded (A, A-, B+, etc.)*

### **LIN 574: Managing Instruction, Assessment, and Resources in TESOL**

Investigation and evaluation of instructional planning and assessment aligned with current state, national, and professional standards. Teacher candidates practice content-based curriculum development, and use of technologies for language and literacy development among English language learners and reflect on their teaching in multi-level classrooms. Partnerships with colleagues, parents and the respective communities are explored. 3 credits, letter graded (A, A-, B+, etc)

*1-3 credits, Letter graded (A, A-, B+, etc.)*

### **LIN 577: Field Experience for Teaching English as a Foreign Language**

Observation, inquiry, and practice of instruction in the area of English as a Foreign Language through various methods and in various settings. Students interested in this field experience are required to meet with the instructor of LIN 524 and/or LIN 529 to prepare a specific semester plan. Fifty hours fieldwork or research. Co-requisite: LIN 524 or LIN 529, offered fall and spring. This course does not satisfy requirements for NYS

Teacher Certification. 1 credit, S/U grading, May be repeated 1 time for credit.

*1 credit, S/U grading  
May be repeated 1 times FOR credit.*

### **LIN 578: Field Experience in Educational Contexts**

Exploration, inquiry, and practice of English language instruction strategies and approaches. Prerequisite: Admission to MA TESOL Teacher Education Program

*1 credit, S/U grading*

### **LIN 579: Field Experience in TESOL Grades N-12**

Observation and practice of data-driven language and literacy instruction and assessment across disciplines for children and adolescents for whom English is not their first language. Teacher candidates are placed in diverse educational settings in pre-elementary through secondary levels for 50 hours of field experience. 1 credit, S/U grading May be repeated for credit

*1 credit, S/U grading  
May be repeated for credit.*

### **LIN 581: Supervised Student Teaching in TESOL: Primary and Middle Level Grades N-6**

TESOL teacher candidates receive supervised practice teaching by arrangements with selected schools across the region. The student teacher reports to the school to which he or she is assigned each full school day for the entire semester. Applications must be filed in the academic year preceding that in which the teacher candidate plans to take the course. 3 credits, S/U grading

*3 credits, S/U grading*

### **LIN 582: Supervised Student Teaching in TESOL: High School (Grades 10-12)**

TESOL teacher candidates receive supervised practice teaching by arrangement with selected schools across the region. The student teacher reports to the school to which he or she is assigned each full school day for the entire semester. Applications must be filed in the academic year preceding that in which the teacher candidate plans to take the course. 3 credits, S/U grading

*3 credits, S/U grading*

### **LIN 591: Directed Readings**

Students read and evaluate the literature on a topic of special academic interest or professional relevance under the direction of a faculty member.

*1-3 credits, S/U grading  
May be repeated for credit.*

### **LIN 592: Directed Research**

Students conduct research on a topic of special academic interest or professional relevance under the direction of a faculty member. The course will also cover responsible conduct in research and scholarship.

*1-3 credits, S/U grading  
May be repeated for credit.*

### **LIN 595: Final Project**

Students present a thesis consisting of original work on a topic in theoretical, experimental, or computational linguistics under the supervision of a faculty member. The work may take various forms, including a thesis, a technical report, or a programming project. Both the topic and the format of the work must be approved by the faculty supervisor. 0-6 credits.

*0-6 credits, S/U grading  
May be repeated for credit.*

### **LIN 600: Colloquium in Linguistics**

An introduction to research in linguistics, with presentations by faculty and visiting scientists. Topics include current research questions and ethics of research and publishing. The course will also cover responsible conduct in research and scholarship.

*0-3 credits, S/U grading  
May be repeated for credit.*

### **LIN 605: Mathematical Linguistics Workshop**

An introduction to research in mathematical linguistics, with presentations by faculty, students, and visiting scientists. Topics include current research questions, the interplay of linguistics with mathematics and other STEM-fields, research software for mathematical linguistics, mathematical writing in linguistics, and how to present mathematical work to a general public.

*0-3 credits, Letter graded (A, A-, B+, etc.)  
May be repeated for credit.*

### **LIN 621: Syntax II**

A detailed consideration of recent developments in syntactic theory, including treatments of constituency and word order, grammatical relations, typological variation and linguistic universals, and constraints on grammatical rules and representations.

*0-3 credits, Letter graded (A, A-, B+, etc.)  
May be repeated for credit.*

### **LIN 623: Phonology II**

A study of recent developments in phonological theory, with particular attention to nonlinear models of phonological representation and constraint-based models.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 624: Morphology and Word Formation**

The internal structure of words and the place of the word in syntax, phonology, and the lexicon. A variety of analytical methods -- distributional, experimental, and computational-- will be introduced.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

### **LIN 625: Semantics**

An investigation of the role of semantics (the theory of meaning) in the overall theory of grammar, structured around such topics as formal semantics, the interaction of syntax and semantics, and lexical semantics. Prerequisite: LIN 521

*0-3 credits, Letter graded (A, A-, B+, etc.)*

### **LIN 626: Computational Phonology**

An in-depth survey of natural phonology from a computational perspective. Topics vary by year and may include formal language theory (subregular hierarchy, finite-state transductions), computation modeling (maximum entropy grammars, Hidden Markov Models), and machine learning.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 627: Computational Semantics**

A study of the computational challenges that arise in the interpretation of natural language utterances. Students are introduced to the logical description of sentence meaning and how these descriptions can be constructed in an algorithmic fashion. The course includes a significant programming component. The selection of topics varies from year to year and may include propositional and first-order logic, typed logics, model theory and model checking, mereology, intensional semantics, quantifier scope, pronoun resolution, discourse representation, scalar implicatures, game-theoretic pragmatics, lexical semantics, and Bayesian inference.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 628: Computational Syntax**

An in-depth survey of natural language syntax from a computational perspective. The primary focus is on combining state-of-the-art techniques from formal language theory with empirical insights from linguistic theory. Topics covered vary by year and may include tree transducers, logics for tree description, weak and strong generative capacity of natural language, lexicalized grammar formalisms,

unification grammars, or the expressivity of probabilistic formalisms.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 629: Learnability**

An introduction to learnability theory and its implications for language typology and language acquisition. The selection of topics varies and may include identification in the limit from positive text, PAC learning, lattice-based learners, Boolean function learning, neural networks, and learning algorithms for linguistic formalisms. Students will develop familiarity with the primary literature and learn important proof techniques of the field.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 630: Parsing and Processing**

A survey parsing theory for natural language processing and its applications in psycholinguistic modeling. The course covers a wide variety of parsing algorithms for context-free and mildly context-sensitive grammar formalisms. The performance of these algorithms is carefully analyzed and set in relation to empirical phenomena of human sentence processing.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 637: Computational Linguistics 2**

An introduction to the theoretical foundation of computational linguistics. The course emphasizes the importance of algorithms, algebra, logic, and formal language theory in the development of new tools and software applications. Empirical phenomena in phonology and syntax are sampled from a variety of languages to motivate and illustrate the use of concepts such as strictly local string languages, tree transducers, and semirings. Students will develop familiarity with the literature and tools of the field.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 650: Selected Topics: Graduate Seminar**

Topics will be announced each semester. The course may be repeated for credit if topic differs.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 651: Syntax Seminar**

Topic varies and relates to current issues in the field and research activities of faculty and students. Past topics have included

A-dependencies, adjectival and adverbial modification, word order and antisymmetry.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 653: Phonology Seminar**

Topic varies and relates to current issues in the field and research activities of faculty and students. Past topics have included interface issues (phonetics, morphology, syntax), functional motivations for phonological constraints (articulatory ease, perceptual salience, parsing considerations), intonation, and second language and loanword phonology.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 655: Computational Linguistics Seminar**

An overview of the mathematical foundations of theoretical and computational linguistics. Topics covered include set theory, morphisms, logic and model theory, algebra, lattices, lambda calculus, probability theory, information theory, and basics of formal language theory. A strong emphasis is put on the linguistic application of the mathematical concepts in the student and analysis of natural language data.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated 1 times FOR credit.*

### **LIN 655: Computational Linguistics Seminar**

An overview of the mathematical foundations of theoretical and computational linguistics. Topics covered include set theory, morphisms, logic and model theory, algebra, lattices, lambda calculus, probability theory, information theory, and basics of formal language theory. A strong emphasis is put on the linguistic application of the mathematical concepts in the study and analysis of natural data.

*0-3 credits, Letter graded (A, A-, B+, etc.)*

*May be repeated for credit.*

### **LIN 680: Qualifying Paper Workshop**

Doctoral candidates will present and discuss their own research work. The course will also cover responsible conduct in research and scholarship. Prerequisite: Advanced standing

*1-3 credits, S/U grading*

*May be repeated for credit.*

### **LIN 698: Graduate Practicum in Teaching**

*May be repeated for credit.*

### **LIN 699: Dissertation Research on Campus**

Independent research for the Ph.D. degree.  
Open only to candidates for the Ph.D. degree who have advanced to candidacy (G5). Major portion of research must take place on SBU campus, at Cold Spring Harbor, or at the Brookhaven National Lab. The course will also cover responsible conduct in research and scholarship.

*1-9 credits, S/U grading  
May be repeated for credit.*

**LIN 700: Dissertation Research off Campus - Domestic**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place off-campus, but in the United States and/or U.S. provinces. Please note, Brookhaven National Labs and the Cold Spring Harbor Lab are considered on-campus.

*1-9 credits, S/U grading  
May be repeated for credit.*

**LIN 701: Dissertation Research off Campus - International**

Prerequisite: Must be advanced to candidacy (G5). Major portion of research will take place outside of the United States and/or U.S. provinces. Domestic students have the option of the health plan and may also enroll in MEDEX. International students who are in their home country are not covered by mandatory health plan and must contact the Insurance Office for the insurance charge to be removed. International students who are not in their home country are charged for the mandatory health insurance. If they are to be covered by another insurance plan they must file a waiver by second week of classes. The charge will only be removed if other plan is deemed comparable.

*All international students must receive clearance from an International Advisor.  
Fall, Spring, 1-9 credits, S/U grading  
May be repeated for credit.*

**LIN 800: Summer Research**

*May be repeated for credit.*