Language Science (LSCI)

Courses

LSCI 1. Languages of the World. 4 Units.
The world has over 6,000 languages, with an exuberant variety of sounds, words, grammars. Introduction to a representative (about eight), drawn from every continent. Students not expected to learn these languages, but to explore and study their structure and complexity.

(VIII)

LSCI 2. Discovering Language. 4 Units.
Explores language's pervasiveness and diversity; demonstrates ways linguistics illuminates language's crucial--albeit hidden--societal role. Issues: self- and group-identification, language death, language in legal and educational settings. Illustrations: spoken and signed languages, varieties of English, Native American languages.

(VII)

LSCI 3. Introduction to Linguistics. 4 Units.
Emphasis on the notion that language is a remarkable achievement of the human mind. Current insights into the nature of language. Survey of various subfields of linguistics. Introduction to linguistic analysis.

(III and V.B).

LSCI 10. Introduction to Phonology. 4 Units.
Basic concepts in phonetic description and phonological analysis.

(III and V.B).

LSCI 20. Introduction to Syntax. 4 Units.
Basic concepts in syntactic description and grammatical analysis.

Prerequisite: LSCI 3

(III and V.B).

LSCI 43. Introduction to Symbolic Logic. 4 Units.
An introduction to the symbolism and methods of the logic of statements, including evaluation of arguments by truth tables, the techniques of natural deduction, and semantic tableaux.

Same as LPS 30, PHILOS 30.

(Vb)

LSCI 51. Acquisition of Language. 4 Units.
What children say, what they mean, and what they understand. Theories about the learning of language by one-, two-, and three-year-olds. Comparison of kinds of data on which these theories are based.

Same as PSYCH 56L.

(III)

LSCI 51B. Foundations of Bilingual Education and Bilingualism. 4 Units.
Provides a comprehensive overview of current issues in bilingual education and bilingualism. Topics include dimensions of bilingualism, the effects of bilingualism on children's linguistic and cognitive development, bilingual education programs, literacy, special needs, and assessment.

Same as EDUC 52, HUMAN 52.

LSCI 68. Introduction to Language and Culture. 4 Units.
Explores what the study of language can reveal about ourselves as bearers of culture. After introducing some basic concepts, examines how cultural knowledge is linguistically organized and how language might shape our perception of the world.

Same as ANTHRO 2D.

(III)
LSCI 99. Special Topics in Linguistics. 4 Units.
Special Topics at lower-division level.
Repeatability: Unlimited as topics vary.

LSCI 102. Formal Languages and Automata. 4 Units.
Formal aspects of describing and recognizing languages by grammars and automata. Parsing regular and context-free languages. Ambiguity, nondeterminism. Elements of computability; Turning machines, random access machines, undecidable problems, NP-completeness.
Prerequisite: (I&C SCI 46 or CSE 46) and MATH 2A and MATH 2B and I&C SCI 6B and I&C SCI 6D. I&C SCI 46 with a grade of C or better. CSE 46 with a grade of C or better
Same as COMPSCI 162.
Restriction: School of Info & Computer Sci students have first consideration for enrollment. Cognitive Sciences Majors have first consideration for enrollment. Language Science Majors have first consideration for enrollment. Computer Science Engineering Majors have first consideration for enrollment.

LSCI 107M. Computational Methods for Language Research. 4 Units.
Focuses on computational methods useful for language research. Students become familiar with software and programming languages used for extracting information from electronic datasets and for creating basic simulations of linguistic cognition. No prior programming experience assumed.
Prerequisite: PSYCH 150 or LSCI 155 or PSYCH 156A or LSCI 151
Same as PSYCH 157M.

LSCI 109. Special Topics in Computational Linguistics. 4 Units.
Topics in computational linguistics.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.

LSCI 111. Intermediate Phonology. 4 Units.
Prerequisite: Recommended: LSCI 10
 Concurrent with LINGUIS 211.

LSCI 115. Introduction to Phonetics. 4 Units.
Introduces students to fundamental concepts of phonetics. The sound systems of selected languages around the world, including that of English, are described in detail. Students are trained to work with speech sound recognition, phonetic transcription, and language sound production.
Prerequisite: LSCI 3

LSCI 119. Special Topics in Phonetics/Phonology. 4 Units.
Topics in Phonetics/Phonology.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.

LSCI 121. Intermediate Syntax. 4 Units.
Examines various phenomena within a generative theory of syntax, focusing on the nature of syntactic rules, representations, and constraints. Introduces methods of experimental syntax, providing students hands-on opportunity to recognize the connection(s) between theory and experiential results.
Prerequisite: LSCI 20

LSCI 124. Current Topics in Syntactic Theory. 4 Units.
Research seminar in syntax. Intensive study of a small number of well-defined topics which have had significant impact on the development of syntactic theory.
Repeatability: May be repeated for credit unlimited times.
LSCI 129. Special Topics in Syntax. 4 Units.
Topics in Syntax.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.

LSCI 139. Special Topics in Morphology. 4 Units.
Topics in Morphology.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.

LSCI 141. Topics in Philosophy of Language. 4 Units.
Selected topics in the philosophy of language, e.g., the nature of meaning, mechanisms of reference, speech acts.
Repeatability: Unlimited as topics vary.
Same as LPS 145, PHILOS 145.

LSCI 142. Introduction to Logic. 4 Units.
Introduction to sentence logic, including truth tables and natural deduction; and to predicate logic, including semantics and natural deduction.
Same as LPS 104, PHILOS 104.

LSCI 143. Introduction to Formal Semantics. 4 Units.
Introduces students to the analytical tools used in the investigation of natural language semantics. Topics include the truth-conditional approach to meaning, compositionality, scope and anaphora, generalized quantifier theory, and intensionality.
Prerequisite: LPS 30 or PHILOS 30 or LPS 104 or PHILOS 104. LPS 30 with a grade of A- or better. PHILOS 30 with a grade of A- or better. LPS 104 with a grade of A- or better. PHILOS 104 with a grade of A- or better

LSCI 145A. Elementary Set Theory. 4 Units.
An introduction to the basic working vocabulary of mathematical reasoning. Topics include sets, Boolean operations, ordered n-tuples, relations, functions, ordinal and cardinal numbers.
Same as LPS 105A, PHILOS 105A.

LSCI 145B. Metalogic. 4 Units.
Introduction to formal syntax (proof theory) and semantics (model theory) for first-order logic, including the deduction, completeness, compactness, and Löwenheim-Skolem theorems.
Prerequisite: PHILOS 105A
Same as LPS 105B, PHILOS 105B.
Overlaps with MATH 150.

LSCI 145C. Undecidability and Incompleteness. 4 Units.
Introduction to the formal theory of effective processes, including recursive functions, Turing machines, Church's thesis, and proofs of Gödel's incompleteness theorem for arithmetic, and Church's undecidability theorem for first-order logic.
Prerequisite: PHILOS 105B
Same as LPS 105C, PHILOS 105C.
Overlaps with MATH 152.
Concurrent with LPS 205C.

LSCI 149. Special Topics in Semantics. 4 Units.
Topics in Semantics.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.
LSCI 151. Acquisition of Language II. 4 Units.
Focuses on native language learning, exploring the way in which infants and very young children unconsciously uncover the rich systematic knowledge of their native language. Examines both experimental and computational studies that quantitatively investigate the “how” of language acquisition.

LSCI 151B. Bilingual Acquisition. 4 Units.
Focuses on different forms of bilingualism, including bilingual first language acquisition, early second language acquisition, and late second language acquisition. Research techniques discussed include theoretical, experimental, and computational methods.
Prerequisite: LSCI 151 or PSYCH 156A. Placement via consent of the instructor is also accepted.

LSCI 151S. Second Language Acquisition . 4 Units.
Examines a number of theoretical perspectives that attempt to explain second language learning with a focus on adult learners. How universal constraints, individual differences, and social factors influence the task of learning a second language as an adult.
Prerequisite: LSCI 3 or SPANISH 113B

LSCI 158. Language and the Brain . 4 Units.
Research analysis on biological bases of human linguistic capacity. Development, focusing on hemispheric specialization, plasticity; localization of specific linguistic functions in adults, with emphasis on study of aphasias; relation of linguistic capacity to general cognitive capacity, considering research on retardation.
Prerequisite: (PSYCH 7A or PSY BEH 9 or PSYCH 9A or PSY BEH 11A) and (PSYCH 9B or PSY BEH 11B or BIO SCI 35 or BIO SCI N110)
Same as BIO SCI N160, PSYCH 161.
Restriction: Cognitive Sciences Majors have first consideration for enrollment. Biological Sciences Majors have first consideration for enrollment. Psychology Majors have first consideration for enrollment.

LSCI 159. Special Topics in Psycholinguistics. 4 Units.
Topics in Psycholinguistics.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.

LSCI 164A. Topics in Romance Languages. 4 Units.
Topics in Romance Languages.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.

LSCI 164B. French Phonetics. 4 Units.
Study of the sound structure of French. Introduction to elements of general phonetics, contrastive (French/English) phonetics, and French phonetics and phonology. Designed to help students improve their pronunciation. Also serves as a preparatory course for language teaching.
Prerequisite: FRENCH 1C

LSCI 165B. Structure of Japanese. 4 Units.
An overview of the linguistic features of modern Japanese. Provides students with a systematic introduction to the nature and characteristics of the language.
Same as EAS 123.

LSCI 165L. Language Change, Acquisition, and Complexity. 4 Units.
Focuses on models of language change, acquisition, and complexity, looking at the connections between them to explain empirical data relating to the form of existing languages and how languages change over time. Emphasis is placed on computational and mathematical models.
Prerequisite: PSYCH 156A. PSYCH 156A with a grade of A- or better

LSCI 168J. Improvisation, Language, and Culture. 4 Units.
Addresses improvisation, both in performance and in everyday life. Examines improvisation as the "flexible regulation" of everyday behavior by exploring different scholarly treatments of language and interaction, and working on developing actual theatrical improvisation skills.
Same as ANTHRO 151A.
Restriction: Upper-division students only.
LSCI 168S. Language and Social Cognition. 4 Units.
Explores the relationship between language and cognition in social and cultural contexts. The overall goal is to think through how language structure and use impact how individuals perceive, think about, and understand the world around them.

Same as ANTHRO 150A.

Restriction: Anthropology Majors have first consideration for enrollment.

LSCI 169. Special Topics in Language Studies. 4 Units.
Topics in Language Studies.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.

LSCI 172. History of English. 4 Units.
Traces the history of English from its roots through its earliest written records and into the present, including fundamental changes in morphology, phonology, syntax, semantics, and vocabulary, as well as social, cultural, and historical forces affecting language.

Prerequisite: LSCI 3

LSCI 175. Language Origins: Evolution, Genetics, and the Brain. 4 Units.
Examines how human language(s) may have originated. Studies pertinent techniques (reconstruction) and addresses related questions, including is our language faculty inborn (i.e., genetically encoded)? Can brain imaging and population genetics research help to unlock this mystery of human evolution?.

Same as ANTHRO 152A, GLBLCLT 105, HISTORY 135G.

LSCI 176. Introduction to Pidgins and Creoles. 4 Units.
Explores the linguistic structures of pidgin and creole languages and examines major theories for the surprisingly high degree of similarity found across pidgin and creole languages. Includes sociolinguistic and field methods.

Prerequisite: LSCI 3 or SPANISH 113A

LSCI 179. Special Topics in Historical Linguistics. 4 Units.
Topics in Historical Linguistics.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.

LSCI 181A. Jumpstart I: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.

Same as EDUC 141A, PSYCH 141J.

Restriction: Department of Education students have first consideration for enrollment. Psychology Majors have first consideration for enrollment.

LSCI 181B. Jumpstart I: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.

Same as EDUC 141B, PSYCH 141K.

Restriction: Department of Education students have first consideration for enrollment. Psychology Majors have first consideration for enrollment.

LSCI 181C. Jumpstart I: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.

Same as EDUC 141C, PSYCH 141L.

Restriction: Department of Education students have first consideration for enrollment. Psychology Majors have first consideration for enrollment.
LSCI 181D. Jumpstart II: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.
Prerequisite: (PSYCH 141J and PSYCH 141K and PSYCH 141L) or (EDUC 141A and EDUC 141B and EDUC 141C)
Same as EDUC 141D, PSYCH 141M.

LSCI 181E. Jumpstart II: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.
Prerequisite: (PSYCH 141J and PSYCH 141K and PSYCH 141L) or (EDUC 141A and EDUC 141B and EDUC 141C)
Same as EDUC 141E, PSYCH 141N.

LSCI 181F. Jumpstart II: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.
Prerequisite: (PSYCH 141J and PSYCH 141K and PSYCH 141L) or (EDUC 141A and EDUC 141B and EDUC 141C)
Same as EDUC 141F, PSYCH 141O.

LSCI 181G. Jumpstart III: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.
Prerequisite: (PSYCH 141M and PSYCH 141N and PSYCH 141O) or (EDUC 141D and EDUC 141E and EDUC 141F)
Same as EDUC 141G, PSYCH 141P.

LSCI 181H. Jumpstart III: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.
Prerequisite: (PSYCH 141M and PSYCH 141N and PSYCH 141O) or (EDUC 141D and EDUC 141E and EDUC 141F)
Same as EDUC 141H, PSYCH 141Q.

LSCI 181I. Jumpstart III: Early Language, Literacy, and Social Development. 4 Units.
An experiential course integrated with lecture material in the field of child development and education. Students are expected to attend lectures, complete assignments, and commit eight hours per week as mentors of disadvantaged preschool children.
Prerequisite: (PSYCH 141M and PSYCH 141N and PSYCH 141O) or (EDUC 141D and EDUC 141E and EDUC 141F)
Same as EDUC 141I, PSYCH 141R.

LSCI 182V. Language and Literacy. 4 Units.
Addresses the linguistic principles and processes that underlie oral and written language proficiency. Emphasis is on how to use phonology, morphology, orthography, semantics, syntax, and pragmatics to support literacy and oral language development for K-12 students.
Same as EDUC 151, PSCI 192V.

Restriction: Language Science Majors have first consideration for enrollment. Psychological Science Majors have first consideration for enrollment. Education Majors have first consideration for enrollment. Psychology and Social Behavior Majors have first consideration for enrollment. Psychology Majors have first consideration for enrollment. Social Ecology Majors have first consideration for enrollment.

LSCI 189. Special Topics in Applied Language Science: Writing skills for Language Science. 4 Units.
Topics in Applied Language Science.
Prerequisite: Prerequisites vary.
Repeatability: Unlimited as topics vary.
LSCI 195A. Language Science Research I. 4 Units.
Provides students with in-depth experience in different facets of research in language science. It includes theoretical, behavioral, computational, and/or applied language science topics and methodologies.

Prerequisite: Permission of faculty advisor. If this is not the same faculty member as the course instructor, the faculty advisor will coordinate with the course instructor when it comes to assessing the student’s research process at the end of each quarter.

Repeatability: May be repeated for credit unlimited times.

LSCI 195B. Language Science Research II. 4 Units.
Provides students with in-depth experience in different facets of research in language science. It includes theoretical, behavioral, computational, and/or applied language science topics and methodologies.

Prerequisite: Permission of faculty advisor. If this is not the same faculty member as the course instructor, the faculty advisor will coordinate with the course instructor when it comes to assessing the student’s research process at the end of each quarter.

Repeatability: May be repeated for credit unlimited times.

LSCI 195C. Language Science Research III. 4 Units.
Provides students with in-depth experience in different facets of research in language science. It includes theoretical, behavioral, computational, and/or applied language science topics and methodologies.

Prerequisite: Permission of faculty advisor. If this is not the same faculty member as the course instructor, the faculty advisor will coordinate with the course instructor when it comes to assessing the student’s research process at the end of each quarter.

Repeatability: May be repeated for credit unlimited times.

LSCI 195W. Writing Skills for Language Science. 4 Units.
Focuses on written technical communication skills in language science. Topics include the scientific publication process (focusing on research abstracts), how to write for pieces of different lengths, and writing for different audiences.

(Lb)

LSCI 198. Directed Group Study. 4 Units.
Directed study with Linguistics faculty.

Repeatability: Unlimited as topics vary.

LSCI 199. Independent Study. 4 Units.
Independent research with Linguistics faculty. Students may enroll for only one 199 each quarter.

Repeatability: May be repeated for credit unlimited times.