

Linguistics

LIN

200. Language and Linguistics

Fall, Winter, Spring. 3(3-0)

Especially for students in areas other than linguistics, this course consists of an introduction to language and linguistics, emphasizing the application of linguistics to various other disciplines.

315. World Literature in English

Fall. 3(3-0) *Interdepartmental with and administered by the English Department.* Representative works, not from England or the United States, which were written originally in English, especially the English literature of present or former British Commonwealth nations, and nations from the Middle East and Africa.

316. World Literature in English Translation

Winter. 3(3-0) *Interdepartmental with the English Department.* Significant and characteristic works of the Orient, the Middle East, and Africa in English translation.

317. Genres and Themes in World Literature

Spring. 3(3-0) *Interdepartmental with and administered by the English Department.*

Work will center each term around a single literary genre, type or theme. Typical examples: The Quest, Literature of Revolt, Satire. Literary examples will be selected from several national literatures.

401. Introduction to Linguistics

Fall, Winter, Spring. 3(3-0) *Juniors or approval of department. Not open to students with credit in 200.*

The scientific study of human languages. Basic goals, assumptions, terminology, and research results of modern theoretical and applied linguistics, with examples from a variety of languages.

402. Phonology

Fall, Winter, Spring. 3(3-0) 401 or approval of department.

Sounds and sound systems, emphasizing the four basic areas of articulatory phonetics, phonetic features and components, classical phonemics, and phonology in contemporary linguistic theories.

403. Morphology

Fall, Winter, Spring. 3(3-0) 402 or concurrently.

Structure of words, covering the identification and classification of morphemes, morphonemic alternation, and morphology in contemporary linguistic theories.

421. Articulatory Phonetics

Fall, Winter, Spring. 3(2-2) *Approval of department.*

Development of phonetic skills for the learning and teaching of languages.

431. Introduction to Transformation Grammar

Winter, Spring. 3(3-0) 401 or approval of department.

Investigation of the origin and development of transformational theory of syntax; properties of deep structure, surface structure, and transformations; application of transformational concepts to native and foreign language learning.

441. Introductory Readings in Linguistics

Fall, Winter, Spring. 3(3-0) 401. Critical reading of basic texts of modern linguistics.

471. Principles and Methods of Historical Linguistics

Winter. 3(3-0) 403 or concurrently.

Types of linguistic change and the methods used by linguists to study the historical development of languages and language families.

811. History of Linguistics

Fall. 3(3-0) *Approval of department.*

The origin and development of linguistic studies from ancient India and Greece to the present. Provides a foundation for the understanding of contemporary issues in linguistics.

821. Phonological Analysis

Fall, Winter, Spring. 3(3-0) *May re-enroll for a maximum of 9 credits. Approval of department.*

Advanced study of phonology, generally utilizing one of the following theories: stratificational, tagmemic, transformational.

831. Grammatical Analysis

Fall, Winter, Spring. 3(3-0) *May re-enroll for a maximum of 9 credits. Approval of department.*

Advanced study of syntax and related topics, generally utilizing one of the following theories: stratificational, tagmemic, transformational.

835. Semantics of Natural Languages

Spring. 3(3-0) 431 or approval of department.

Selected topics on the study of meaning in human languages. History, issues, and theories of semantics.

838. Interdisciplinary Seminar on Africa

For course description, see *Interdisciplinary Courses*.

841. Field Methods

Fall. 3(3-0) *May re-enroll for a maximum of 9 credits. 403 or approval of department.*

Methods of working with informants in order to gather linguistic information, processing and analyzing data, writing linguistic descriptions.

851. African Linguistics

Winter. 3(3-0) *May re-enroll for a maximum of 9 credits. 401; 402 or concurrently.*

Investigation of linguistic issues and phenomena in one or a group of African languages.

860. Special Projects

Fall, Winter, Spring, Summer. *Variable credit. Approval of instructor.*

Supervised study, reading, and research in specialized areas of linguistics.

871. Comparative Indo-European Linguistics

Spring of odd-numbered years. 3(3-0)

Comparative linguistics as applied to the investigation of the development and historical relationships of the languages of the Indo-European family.

880. Seminar in Linguistics

Fall, Winter, Spring. 3(3-0) *May re-enroll for a maximum of 18 credits in different topics. Approval of department.*

Advanced critical study of current topics in linguistics such as applications to other disciplines, aspects of linguistic theory, child language acquisition, contrastive analysis, structure of particular languages.

899. Research

Fall, Winter, Spring, Summer. *Variable credit. Approval of instructor.*

980. Seminar in Linguistics

Spring. 3(3-0) *May re-enroll for a maximum of 9 credits in different areas. Approval of department.*

Special topics in linguistics for advanced graduate students.

999. Research

Fall, Winter, Spring. *Variable credit. Approval of instructor.*

South Asian Languages

SAL

101. South Asian Languages—Elementary

Fall. 5(3-2) *May re-enroll for 101-102-103 sequence in more than one South Asian Language.*

The spoken language. Emphasis on intensive pronunciation, comprehension drills, and developing sentence structure. Orthography introduced.

102. South Asian Languages—Elementary

Winter. 5(3-2) *May re-enroll for 101-102-103 sequence in more than one South Asian Language. 101.*

Continuation of 101.

103. South Asian Languages—Elementary

Spring. 5(3-2) *May re-enroll for 101-102-103 sequence in more than one South Asian Language. 102.*

Continuation of 102.

201. South Asian Languages—Intermediate

Fall. 4(3-2) *May re-enroll for 201-202-203 sequence in more than one South Asian Language. 103.*

Continued development of oral and aural skills. Study of grammar, readings in simple texts and exercises in composition.

202. South Asian Languages—Intermediate

Winter. 4(3-2) *May re-enroll for 201-202-203 sequence in more than one South Asian Language. 201.*

Continuation of 201.

203. South Asian Languages—Intermediate

Spring. 4(3-2) *May re-enroll for 201-202-203 sequence in more than one South Asian Language. 202.*

Continuation of 202.

LYMAN BRIGGS COLLEGE

LBC

111. College Algebra

Fall. 5(5-0) *Placement Test or approval of the college. Not open to students with credit in MTH 108, 109, or 111.*

Topics covered include polynomial, trigonometric, exponential, and logarithmic functions, their inverses and their properties; and analytic geometry with an emphasis on conics.

112. Calculus I

Fall, Winter, Spring. 5(5-0) *111 or MTH 109; LBC 125 concurrently. Not open to students with credit in MTH 112.*

Topics covered include sequences and their limits, derivatives of rational power functions,

techniques of differentiation, applications, numerical methods for evaluating polynomials and approximating square roots.

113. Calculus II

Fall, Winter, Spring. 5(5-0) 112 and 125. Not open to students with credit in MTH 113.

Continuation of 112. Topics covered are applications of the derivative integration, exponential, logarithmic, and trigonometric functions, power series, and numerical methods for integrating, root finding, and series evaluating.

125. Elements of Computer Programming

Fall, Winter, Spring. 3(3-0) 112 concurrently. Students may not receive credit for 125 and CPS 110 or CPS 120.

FORTTRAN programming; arithmetic and logical operations; functions and subroutines; applications to concurrent topics in mathematics; principles of operation and programming of batch processing and time-shared computers.

131. Third Culture Rhetoric I

Fall, Winter. 4(4-0)
Instruction and practice in expository writing. Paper and report topics drawn from readings which relate science and human values.

132. Third Culture Rhetoric II

Winter, Spring. 4(4-0) 131.
Continuation of 131 with emphasis upon investigative papers. Selected students may meet course requirements through independent study.

140. Biology I

Winter, Spring. 3(2-3) Not open to students with credit in B S 212.
Development of the concept of terrestrial and aquatic ecosystems and the maintenance and manipulation of energy, materials, and space at the organismal level of organization.

***141. Biology II**

Fall, Spring. 3(2-3) 140; Not open to students with credit in B S 211.
Maintenance and manipulation of materials, energy, space and information at the cellular and tissue level of organization.

150. Physics—Elementary Concepts

Fall. 1(2-0) MTH 108 or 109 or LBC 111 and LBC 151 concurrently.
Elementary concepts of mechanics, electricity, magnetism and optics.

151. Introduction to Chemistry and Physics I

Fall. 4(4-3) MTH 108 or 109 or LBC 111 concurrently; high school physics or 150 concurrently.
Fundamental techniques of quantitative scientific investigation; gas laws, kinetic theory and thermodynamics.

152. Introduction to Chemistry and Physics II

Winter. 4(4-3) 151.
Topics in modern physics; photons, electrons, atoms and nuclei; radioactivity, nuclear reactions; Bohr theory of the hydrogen atom; special theory of relativity.

153. Introduction to Chemistry and Physics III

Spring. 4(4-3) 152.
Topics in modern chemistry; atomic structure, chemical bonding, molecular orbitals; stoichiometry, chemical dynamics and equilibria, fundamentals of organic chemistry.

214. Calculus III

Fall, Winter, Spring. 5(5-0) 113.
Not open to students with credit in MTH 215.
Topics covered include infinite series, power series, and introduction to differential equations; first order, second order linear with constant coefficients, first order systems; numerical methods, power series solutions, and applications.

215. Calculus IV

Fall, Winter, Spring. 5(5-0) 214.
Not open to students with credit in MTH 214.
Introduction to the calculus of several variables.

233. Special Topics in Third Culture Rhetoric

Fall, Winter, Spring. 1 to 2 credits.
May re-enroll for a maximum of 6 credits. 132
Guided study of relations between the humanities and sciences. Students submit written work.

***242. Biology III**

Fall, Winter. 4(3-3) 141.
Organismal growth and development from molecular genetics through life cycles of selected plant and animal species.

251. Introduction to Chemistry and Physics IV

Fall. 4(4-3) 153.
Classical physics; kinematics and dynamics of particles and rigid bodies; electricity; magnetism, electromagnetism, wave motion and wave optics.

252. Introduction to Chemistry and Physics V

Winter. 4(4-3) 251.
Chemistry of non-metals, transitional elements and coordination compounds, organic chemistry.

253. Introduction to Chemistry and Physics VI

Spring. 4(4-3) 252.
Relativity; atomic, molecular, and solid-state physics, quantum-mechanical effects and devices, nuclear models and nuclear energy levels.

256. Energy Consumption and Environmental Quality

Spring. 3(3-0) Sophomores. Interdepartmental with the Physics Department.
The role of energy as a fundamental pollutant will be discussed along with the availability of fossil energy sources. Limitations on the safe utilization of both fossil and nuclear energy will also be considered.

290. Special Problems

Fall, Winter, Spring. 1 or 2 credits.
May re-enroll for a maximum of 6 credits.
Approval of college.

295. Independent Study

Fall, Winter, Spring, Summer. 1 to 4 credits. May re-enroll for a maximum of 12 credits. Approval of college.
Independent study for qualified students under direction of a faculty member.

331. Modern Fiction

Fall. 4(4-0) 132 or 131 with a 3.0 or better.
Recent fiction and their cultural backgrounds, particularly those of special value to students of science. Students may submit original fiction in partial fulfillment of course writing requirements.

*For prerequisite purposes, this introductory biology sequence may be used in place of Biological Science 210, 211, 212.

332. Modern Drama

Winter. 4(4-0) 131 or 131 with 3.0 or better.
Recent plays which have social and literary significance. Students may submit original dramatic writings as partial fulfillment of course writing requirements.

333. Modern Poetry

Spring. 4(4-0) 132 or 131 with 3.0 or better.
Recent poetry of literary and social nature. Students may submit original poetry in partial fulfillment of course writing requirements.

344. Introductory Animal Systematics Laboratory

Fall. 1(0-3) ZOL 103 concurrently. Interdepartmental with the Zoology Department.
Laboratory examination of form and function of representative vertebrate and invertebrate animals.

372. Introduction to Symbolic Logic

Fall, Winter. 4(4-0) Sophomores or approval of college.
Concepts, notation and application of truth-functional and quantificational logic. Special topics may include axiomatics, meta-theory, modal logic, fallacies, paradoxes, inductive argument, the justification of logic.

373. Introduction to the Philosophy of Science

Winter, Spring. 4(4-3) 372. Juniors or approval of college.
Philosophical problems about the character and justification of scientific knowledge. Possible topics: concept formation, theory construction, scientific explanation, confirmation theory, "logic" of discovery, philosophical implications of physical theories.

374. Historical Problems in the Biological Sciences

Fall, Winter. 4(4-0) Juniors or approval of college.
Various themes or periods in the biological sciences. The course may emphasize the pattern of theoretical development, changes in explanatory ideals, the interaction of external factors and scientific ideas, etc.

375. Historical Problems in the Physical Sciences

Spring. 4(4-0) Juniors or approval of college.
Various themes or periods in the physical sciences. The course may emphasize the pattern of theoretical development, changes in explanatory ideals, the interaction of external factors and scientific ideas, etc.

376. Historical Problems in Technical Change

Fall, Spring. 4(4-0) Juniors or approval of college.
Factors which influence technical change. Exploration of both historical and contemporary problems of technology and technical change.

483. Philosophy of Physical Science

Fall, Spring. 4(4-0) Nine credits in physical science or approval of department. Interdepartmental with the Department of Philosophy.
Philosophical problems of the physical sciences. The topics will be taken from such areas as: quantum mechanics, space-time, classical mechanics, relativity.

484. Philosophy of Biological Sciences

Winter, Spring. 4(4-0) Nine credits in science or approval of department. Interdepartmental with the Department of Philosophy.
Methodological notions and problems of the biological sciences such as: observation and measurement, classification, teleological and functional explanation, teleological systems, emergentism, vitalism, value neutrality.

490. Specid Problems

Fall, Vinter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 6 credits. Approval of department.

491. Senior Seminar I

Fall, Vinter, Spring. 3(3-0) Seniors or approval of college.

Selected interdisciplinary problems concerned with the interfae between science and society or science and nan are identified and formulated. A bibliography is generated and an outline for a thesis prepared.

492. Senior Seminar II

Fall, Vinter, Spring. 3(3-0) 491. The thesis planned in 491 is written and evaluated.

495. Independent Study

Fall, Vinter, Spring, Summer. 1 to 12 credits. May re-enroll for a maximum of 12 credits. Juniors.

MANAGEMENT

MGT

College of Business

101. Introduction to Business

Fall, Vinter, Spring. 4(4-0) University College students or approval of department.

Functions performed by business and the role of administration in our economy as a whole and in the operation of a specific business. Four major objectives: to aid students in choosing a vocation, to help Business majors select a field of concentration, to show the place of specialized techniques presented in more advanced business courses, and to give some familiarity with common business practices and terminology.

300. Operations Planning

Fall, Spring. 4(4-0) CPS 110, STT 315, AFA 202.

Operations Management—functions and technologies. Planning and acquiring physical facilities, work design and work measurement, acquisition and management of materials.

301. Operations Control

Winter. 4(4-0) 300. Analysis and control of operations. Production control, product reliability, maintenance, cost control and management information systems.

302. Organization and Administration

Fall, Vinter, Spring, Summer. 4(4-0) Junior Business majors; EC 201 and AFA 201.

Analysis of the internal organization structure and of executive roles and functions in the business enterprise and other goal-directed institutions. Examines administrative and managerial concepts in the context of behavioral research in business. Cases and outside research reports are used for specific analyses.

305. Materials and Purchasing Management

Fall, Vinter. 4(4-0) 302 or MTA 300 or Juniors; non-majors.

Planning, organizing and controlling materials; acquisition in industrial enterprises, institutions, and government. Management of purchasing, materials movement, storage and control. Value analysis, purchasing research, vendor relations and purchase forecasting.

306. Analysis of Processes and Systems

Fall, Vinter, Spring. 4(4-0) CPS 110, STT 316.

Analysis of some fundamental systems and process concepts which are basic to industrial management. The course is oriented toward computer model building, acquainting the student with the use of the computer as an instrument for analysis of complex problems in industry. Course includes consideration of criteria for efficiency and optimization, and program planning.

310. Fundamentals of Personnel Administration

(303.) Fall, Vinter, Spring, Summer. 4(4-0) Juniors.

Organization, functions, and policy administration of employee relations activities in the business enterprise; consideration of new techniques of employment, training, wage payment, morale-building, and employee security.

405. Operations Management: Current Topics

Spring. 4(4-0) 301, 302.

Consideration of current and controversial questions in the operations area. Field experience to study operations and policies in industrial, institutional, and service organizations.

406. Introduction to Management Science

Winter. 4(4-0) 306.

Quantitative models and techniques applied to various business problems integrating the computer into the problem solving process. Topics include linear programming, integer programming, dynamic programming, queuing problems, Bayesian Decision Theory, theory of games.

409. Business Policy

Fall, Vinter, Spring, Summer. 4(4-0) Seniors in business administration and 302; AFA 391; MTA 300.

Problems, methods, and analytical frameworks for building and maintaining consistent and effective policy frameworks in the business enterprise. Written and oral analyses are made of comprehensive cases cutting across the major functions within business organizations. Team and individual reports are required.

411. Personnel Selection and Development

Winter. 4(4-0) 310; MTA 317.

Manpower input problems of business organizations — manpower planning, recruitment, selection, placement, training and development at all levels. Focus is on policy issues, research findings, and advanced techniques.

412. Compensation and Motivation

Spring. 4(4-0) 310.

Manpower motivation and compensation problems in business organizations — performance appraisal, job evaluation, wage and salary administration, non-financial incentives and the impact of job content and job context factors on performance.

413. Occupational Safety and Health Administration

(403.) Fall, Vinter. 4(4-0) Juniors; 302 for majors.

Programs and procedures for control of work accidents and maintenance of health in business and other organizations. Analysis of costs related to employee and product safety. Administration of a safety program in compliance with new Federal law.

414. Human Relations in Business

(404.) Fall, Vinter, Summer. 4(4-0) 302; approval of department.

Human problems in business administration: examination of the empirical research dealing

with organizational and administrative problems in business, including morale, motivation, authority, power, centralization, commitment, and mobility.

415. Managerial Approaches to Collective Bargaining

Winter, Spring. 4(4-0) 302 or Junior non-business majors.

Union-management problems and managerial strategy and tactics in collective bargaining — the union challenge, legal constraints, negotiations and operating under the contract, dimensions of cooperation and conflict.

420. Problems of Small Business Enterprise

Fall. 4(4-0) Approval of department. For College of Business Seniors, or non-business majors enrolled in AFA 315 concurrently. For students participating in Lansing Entrepreneurial Assistance Service (LEASE).

Analysis of problems of establishing, financing, and managing a small business enterprise. Emphasis on minority entrepreneurship. Students will prepare a proposal for establishing a small business enterprise.

421. Small Business Counseling

Winter, Spring. 1 to 3 credits. May re-enroll for a maximum of 6 credits. 420, and approval of department.

Planned program of business counseling with small businesses in the Lansing area in need of management assistance. Students will meet bi-weekly to share experiences and discuss problems.

468. Field Studies

Fall, Vinter, Spring, Summer. Variable credit. May re-enroll for a maximum of 8 credits. Business administration majors and approval of department.

Planned program of observation, study, and work in selected business firms. Designed to supplement classroom study in such a way as to make maximum contribution to students' total educational experience. Field work may be arranged in finance, insurance, marketing, personnel management, production management, purchasing, real estate, retailing, transportation and banking.

499. Senior Seminar

Spring. 4(4-0) Senior majors; approval of department.

Directed reading and student research in contemporary management problems.

801. Work Design and Administration

Fall. 4(4-0)

Design, improvement, and problems in the administration of work systems with emphasis on repetitive operations. Criteria for evaluating systems. Tools for developing, analyzing, and improving procedures. Cases and projects.

802. Materials Management

Spring. 4(4-0)

Advanced study of the policies, practices and problems relating to the procurement and control of materials in business organizations.

803. Seminar in Industrial Relations

For course description, see Interdisciplinary Courses.

806. Organization and Administration

Fall, Vinter, Spring, Summer. 4(4-0) 830.

Dynamics of organization: the organization seen as an open system interacting with a rapidly changing environment, as a structure of organized human cooperation, as an instrument of managerial strategy; current theory and research applied to organizational process and design.