843. Ecosystem Analysis, Design and Management
Spring. 3(3-0) 442 or 20L 404.
Interdepartmental with the Zoology Department.
Groups of students from various biological and
cultural disciplines will synthesize and
analyze models of selected biological systems.
Projects should yield information relevant to
solution of contemporary ecological problems.

847. Analysis of Stochastic Systems
Spring. 3(3-0) E E 846.
Equilibrium properties of non-stationary random
processes; problems or estimation, filtering and
prediction; sequential and recursive decision
schemes; applications of random process theory
to system modeling.

888. Hybrid Computation
Spring. 3(3-0) Approval of department.
Hybrid programming techniques, applications in
simulation design, control and optimization.

909. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

961. Optimal Control Theory I
Fall. 3(3-0) 837, 838 or approval of
department. MTH 117. Introduction to
control theory in continuous-state and
discrete-state systems; necessary and sufficient
conditions for optimal solutions, geometric inter-
pretations relations to calculus of variations;
orbit and controlability concepts; and graphical,
numerical and computer problem solutions.

962. Optimal Control Theory II
Winter. 3(3-0) 981.
Optimial control theory in continuous-state and
discrete-state systems; necessary and sufficient
conditions for optimal solutions, geometric interpre-
tations relations to calculus of variations;
orbit and controlability concepts; and graphical,
numerical and computer problem solutions.

963. Optimal Control Theory III
Spring. 3(3-0) 962 or approval of
department.
Topics selected among: computational methods
for optimal controls (solution of selected two-
point boundary value problems); stochastic con-
trol theory; state estimation, Kalman filtering and
related statistical methods; differential game theory.

965. Special Topics in Optimal
Process Theory
Spring of odd-numbered years. 3(3-0)
828 or approval of department. Interdepart-
mental with and administered by the Chemical
Engineering Department.
Continuation of 828 and special topics from the
literature in non-linear, stochastic, and dynamic
programming.

999. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

ENGINEERING

EGR

College of Engineering

150. Introduction to Environmental Systems
Fall. 3(2-0) Interdepartmental with
and administered by Systems Science.
Basic systems concepts presented in a non-
mathematical manner. Application to selected
ecological topics, e.g., energy, water quality,
food production, population dynamics. Inter-
active models provide opportunity for students
to play decision-making role.

100. Engineering Communications
Fall, Winter, Spring. 4(1-8) MTH 108 or 111 or concurrent
Engineering graphics, a means used by engineers
to communicate their ideas to others. Frehand
sketching, descriptive geometry, and graphical,
numerical and computer problem solutions.

101. Mechanical Drawing
Fall, Winter, Spring. 2(0-4)
Lettering and use of instruments. Orthographic projection, working drawings, ma-
chine sketching and isometric drawing.

102. Mechanical Drawing
Fall, Winter, Spring. 2(0-4) 160 or
161.
Continuation of 161 with emphasis on freehand
lettering and sketching, advanced working draw-
ings.

200. Technology and Society
Winter. 3(3-0) One term of Ameri-
can thought and language. Interdepartmental with
the Natural Science Department.
An attempt to describe and analyze portions of
current technology and its impact on society and
the modern world; an exploration of avenues
for assessing such consequences for future tech-
nologies.

201. Introduction to Engineering
Mechanics
Winter. 4(4-0) PHY 237, Interde-
partmental with and administered by the Metal-
lurgy, Mechanics and Materials Science Depart-
ment.
Laws of mechanics governing the behavior
of rigid and deformable bodies emphasizing how
these laws influence engineering design. Ex-
tensive use of demonstrations.

260. Machine Drawing
Fall, Winter, Spring. 3(0-8)
Advanced orthographic projection, detail, and
assembly drawing, sections, conventions,
typing, illustration and other pictorial drawings
of mechanical elements.

263. Structural Drawing
Winter. 3(0-6) An engineering graphics
course.
A comprehensive study of space planning rela-
tive to residential and light-commercial interi-
ers. Building materials, fixtures, and mechanical
equipment will be studied with respect towards
application and installation.

267. Architectural Drafting I
Fall, Winter, Spring. 3(0-6)
House construction detailing. Analysis and
drawing of typical standard details.

285. Descriptive Geometry
Fall. 3(2-2) 160, 161.
Problems involving relations of points, lines, and
planes. Intersections, developments, planar,
and nonplanar vectors.

270. Computer Graphics
Spring. 3(3-0) 160 or 161; CPS
110 or 120 or LBC 195; or approval of
department.
Use of computer controlled display systems for
the solution of multidimensional problems.

300. Technology and Utilization of
Energy
Winter. 3(3-0) Initial course in any
sequence of courses in the Department of Nat-
ural Science. Interdepartmental with and
administered by the Mechanical Engineering De-
partment.
Problems of energy technology and its impact:
energy sources, conversions, waste and environ-
mental effects, future outlook for mankind.

384. Architectural Drafting II
Winter. 3(0-6) 267.
Functional and standard procedure in the layout of
floor plans in traditional and modern houses. Rendered plot plan and required details.

395. House Planning
Fall, Winter, Spring. 3(1-4)
Elementary house architecture. Drawing plans
from sketches. Kitchen planning, house styles,
elements of design, financing, heating, lighting.

386. Architectural Perspective
Drawing
Fall. 3(0-6) Any engineering graph-
ic course.
One-point and two-point perspective, revolved
plan and measuring line methods. Pencil render-
ing, problems in shade and shadows. House
model to scale, optional.

401. Technology Assessment
Spring. 3(0-0) Seniors or approval of
department. Interdepartmental with the
Natural Science Department.
Sociotechnical evaluation of impact of proposed
technologies on economic, political, and cul-
tural aspects of society. Identification of tech-
nical strategies and social goals. Techniques of
assessment.

410. Systems Methodology
Winter. 3(3-0) 150, MTH 113,
150, 120 or 120; Interdepartmental with and
administered by Systems Science.
The systems approach in multidisciplinary large
scale problem solving. The development of
useful systems analysis tools; systems design;
feasibility study; computer simulation for feasi-
bility evaluation.

411. Systems Project
Spring. 3(3-0) 410. Interdepart-
mental with and administered by Systems Science.
Completion of a systems study initiated in 410.
The project may involve the design of hard-
ware, simulation of a solution to an interdisci-
plinary problem, or development of a solution
concept.

493. Architectural Drafting III
Spring. 3(0-6) 364 or 365.
Traditional and modern elevations. One- and
two-point rendered perspective. Functional
plans drawn in 364 or 365 required.

480. Special Problems
Fall, Winter, Spring, Summer. 1 to
4 credits. May re-enroll for a maximum of 8
credits. Approval of department.

ENGLISH

ENG

College of Arts and Letters

091. English for Foreign Students—
Elementary
Fall, Winter, Spring, Summer. Zero
credit. (33-0) to 13(35-0). English
language proficiency examination.
Spoken structures, pattern practice, reading,
writing and laboratory in the English language
for foreign students on the elementary level.
†See page A-2 item 3
Courses

**092A. English for Foreign Students—Low Intermediate**
Fall, Winter, Spring, Summer. Zero credit. (3.5-5) to 15(25-0). English language proficiency examination. Spoken structures; pattern practice; reading, writing and laboratory in the English language for foreign students on the low-intermediate level.

**092B. English for Foreign Students—High Intermediate**
Fall, Winter, Spring. Zero credit. (3.5) to 15(25-0). English language proficiency examination. Spoken structures; pattern practice; reading, writing and laboratory in the English language for foreign students on the high-intermediate level.

**093. English for Foreign Students—Advanced**
Fall, Winter, Spring, Summer. Zero credit. (3.5-5) to 15(25-0). English language proficiency examination. Spoken structures; pattern practice; reading, writing and laboratory in the English language for foreign students on the advanced level.

**094. English for Foreign Students—Supplementary**
Fall-Winter-Spring-Summer. Zero credit. (3.5-5) to 6(10-0). English language proficiency examination. Composition in the English language for foreign students on the supplementary level.

**101. Responses Through Writing**
Fall. 4(4-0) Arts and Letters Freshmen only. A writing workshop that concentrates on the student's personal writing voice and on his responses to the things, people, and institutions central to his experience.

**102. Writing and Composing**
Winter. 5(5-0) Arts and Letters Freshmen only. A writing workshop that develops the emphasis of 101 and encourages students to write in more public and objective forms—narrative, critical analysis, and issue-oriented essays.

**200H. Honors Work**
Fall-Winter-Spring. 1 to 16 credits. Approval of department.

**201. Nature of Language**
Fall-Winter-Spring-Summer. 3(3-0) Various aspects of language—phonology and orthography; morphology, semantics and the lexicon; syntax; and dialects—with special reference to American English.

**205. Introduction to Shakespeare**
Fall, Winter, Spring. 3(3-0) A study of selected plays illustrating the powers of England's greatest writer.

**206. Forms of Literature: Fiction**
Fall, Winter, Spring, Summer. 3(3-0) Required of majors and minors. Open to Freshmen. Major forms of prose fiction, designed to reveal artistic problems met and solved by these forms. Prepares students for advanced literary study by acquainting them with the conventions of various literary forms, by providing a critical vocabulary and by furnishing experience in reading and writing in the major forms of outstanding literary works from all historical periods.

**207. Forms of Literature: Drama**
Fall, Winter, Spring, Summer. 3(3-0) Required of majors and minors. Open to Freshmen. Major forms of drama, designed to reveal artistic problems met and solved by these forms.

**208. Forms of Literature: Poetry**
Fall, Winter, Spring, Summer. 3(3-0) Required of majors and minors. Open to Freshmen. Major forms of poetry, designed to reveal artistic problems met and solved by these forms.

**210. Introduction to the Study of Literature I**
Fall-Winter. 4(4-0) English majors or prospective English majors. Exploration of the major forms of literature, the aims and process of literary study, the cultural and personal functions of literature, and the role of literary study in the University.

**211. Introduction of the Study of Literature II**
Winter, Spring. 4(4-0) 210. A continuation of 210.

**213. Writing Workshop**
Fall, Winter, Spring, Summer. 3(3-0) A writing workshop designed to help students improve their writing abilities. The course provides opportunities for students to write with different purposes in a variety of modes.

**214. Composition for Secondary English Teachers**
Fall, Winter, Spring. 4(3-4) Sophomore English Education majors or written approval of department. Writing practice in various modes such as personal narrative and description, the familiar essay, drama, poetry, and fiction. Exercises in creative dramatics. Discussion of the process of composing and the teaching of oral and written composition in junior and senior high schools. Will participate in field experience.

**228A. Fiction Writing**
Fall, Winter, Spring, Summer. 4(4-0) and written approval of department. The writing of short fiction. Classes and individual conferences. Approval to enroll requires a conference with the instructor and will usually be on the basis of manuscripts submitted to him.

**228B. Fiction Writing**
Fall, Winter, Spring, Summer. 4(4-0) Written approval of department. The writing of fiction. Classes and individual conferences. Approval to enroll requires a conference with the instructor and will usually be on the basis of manuscripts submitted to him.

**229. Poetry Writing**
Fall, Winter, Spring. 4(4-0) 308 and written approval of department. The writing of poetry. Classes and individual conferences. Approval to enroll requires a conference with the instructor and will usually be on the basis of manuscripts submitted to him.

**241. Introduction to Popular Culture**
Fall, Winter, Spring. 3(3-0) Freshmen or Sophomores. Generic and thematic study of the arts and artifacts of popular culture with particular emphasis on writing about the popular culture of contemporary American society.

**242. Popular Literary Forms**
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 8 credits. Freshmen or Sophomores. Study of a particular genre of popular literature (e.g., science fiction, western, gothic) through reading, discussion, and writing, and with attention to the genre's development in media other than print.

**250. Major Themes in English and American Literature**
Fall, Winter, Spring, Summer. 3(3-0) May re-enroll for a maximum of 8 credits. A particular theme of significant works of English and American writers in a relevant social or cultural context. Reading, discussion and writing are essential activities.

**300A. Advanced Fiction Writing**
Fall, Winter, Spring, Summer. 4(4-0) May re-enroll in 300A and/or 300B for a maximum of 12 credits. 329 and written approval of department. Advanced work in the writing of fiction. Classes and individual conferences. Approval to enroll requires a conference with the instructor and will usually be on the basis of manuscripts submitted to him.

**300B. Advanced Poetry Writing**
Fall, Winter, Spring, Summer. 4(4-0) May re-enroll in 300A and/or 300B for a maximum of 12 credits. 329 and written approval of department. Advanced work in the writing of poetry. Classes and individual conferences. Approval to enroll requires a conference with the instructor and will usually be on the basis of manuscripts submitted to him.

**300C. Playwriting**
Winter, Spring. 4(4-0) May re-enroll for a maximum of 8 credits. Approval of department. Basic elements of playwriting: dramatic action, exposition, plotting, characterization, dialogue, mood, and visual effects. Class work will also include discussion of plays.

**301. Literature and the Adolescent**
Fall, Winter, Spring. 4(3-4) 308; Junior English education majors or written approval of department. Extensive reading of literature appropriate for secondary school students. Discussion of formal literature programs in relation to student's reading needs. Methods of analyzing literature and establishing common and individualized reading programs. Will participate in field experience.

**309. English Field Experience Internship**
Fall, Winter, Spring, Summer. 3 to 5 credits. May re-enroll for a maximum of 8 credits. 214, 301, or 408A or concurrently. Intensive field experience in English. Interns will be placed in schools for work in middle, junior, and senior high school classrooms and learning centers in the Lansing area.

**315. World Literature in English**
Fall. 3(3-0) Interdepartmental with Linguistics. Representative works, not from England or the United States, which were written originally in English, especially English literature of present or former British Commonwealth nations, and nations from the Middle East and Africa.
315. World Literature in English Translation
Winter. 3(3-0) Interdepartmental with and administered by Linguistics.
Significant and characteristic works of the Orient, the Middle East, and Africa in English translation.

316. Genres and Themes in World Literature
Spring. 3(3-0) Interdepartmental with Linguistics.
Work centered 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.

340. Studies in Popular Culture
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits. Majors: 208; others: 6 credits of literature.

341. Classic Myths and Literature
Fall, Winter, Spring. Summer of even-numbered years. 3(3-0)
Greek myths that have been wrought into later poetry, fiction, drama, painting, sculpture, and music.

347. Literature and Film
Winter. 3(3-0) 205 or 211.
Introduction to the relationship between film and literature through study of themes, style, and structure in selected film masterpieces from different periods and cultures.

351. English Literature I
Fall. 4(4-0) English major or minor.

352. English Literature II
Winter. 4(4-0) English major or minor.
Survey of English literature, Milton to Blake. Major representative writers and literary forms of the specified period.

353. English Literature III
Spring. 4(4-0) English major or minor.
Survey of English literature, Blake to Hardy. Major representative writers and literary forms of the specified period.

380. Masterpieces of American Literature
Fall, Winter, Spring, Summer. 3(3-0)
Not applicable to major or minor requirements. Selected masterpieces of American literature.

381. Masterpieces of English Literature
Fall, Winter, Spring, Summer. 3 credits.
Not applicable to major or minor requirements. Selected masterpieces of English literature.

382. Masterpieces of Contemporary Literature
Fall, Winter, Spring, Summer. 3(3-0)
Not applicable to major or minor requirements. Selected masterpieces of contemporary literature.

389. Perspectives on Literature
Fall, Winter, Spring, Summer. 4(4-0)
May re-enroll for a maximum of 12 credits. A rich variety of perspectives on literature for majors and non-majors. Approach and content differs with each section.

400. Tutorial
Fall, Winter, Spring, Summer. 1 to 5 credits. May re-enroll for a maximum of 10 credits. Majors: approval of department. Reading, discussion, and writing under the guidance of a faculty member.

400H. Honors Work
Fall, Winter, Spring. Variable credit. Open to particularly able students. Consists of individually supervised study of a phase of literary history.

401. Introduction to English Language Studies
Fall, Winter, Spring. 4(4-0)
The English language, including such topics as social and regional dialects, sounds, grammar, usage, psycholinguistics and semantics. Attention is given to practical applications.

402. Modern English Grammar
Winter, Spring. 4(4-0) 401.
English morphology and syntax, incorporating insights from current linguistic theory and practice.

403. The Development of Modern English
Winter. Summer of even-numbered years. 4(4-0)
Historical development of the language; native and foreign elements, changes in inflections, pronunciation, vocabulary, meaning.

404. American English
Fall. 4(4-0)
Characteristic American dialects, standard and non-standard, with analysis of usage and explanations of origins and differences.

406. Comparative Linguistics
Spring. 5(4-0) 403, 405; 3 college years of a foreign language or approval of department.
Techniques for the scientific comparison of related languages. The comparative method and the results of its application to the Indo-European languages.

407. Methods of Teaching English as a Second Language
Fall. 4(4-0) 402.
Applications of linguistic principles to teaching of English pronunciation, structure, and vocabulary to native speakers and to native speakers of other languages. Preparation of materials and discussion of techniques.

408A. Problems in the Teaching of Reading
Fall, Winter, Spring. 4(3-4) 214, 301, ED 327D.
Instruction and field experience in the teaching of reading for prospective English teachers.

408B. Problems in the Teaching of Reading and Writing
Fall, Winter, Spring. 4(3-4) 408A.
Independent work on the teaching and learning of reading and writing with strong emphasis on field experience.

408C. Problems in the Teaching of Reading and Writing
Fall, Winter, Spring. 4(3-4) 408B.
Independent work in developing junior and senior high school reading and writing programs. Will participate in field experience.

409. Teaching Competencies in English
Fall, Winter, Spring, Summer. 4(4-0) 214, 301, or 408A or ED 327D. ENG 308 concurrently.
Practicum in the development of teaching competencies in the fundamentals of reading and writing within a humanistic English curriculum. Analysis of accountability models and assessment instruments in English.

410. Chaucer
Fall, Winter, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Chaucer’s poetry, especially The Canterbury Tales. Read in Middle English.

411. Spenser
Winter. 4(4-0) Majors: 208; others: 6 credits of literature.
A representative selection of Spenser’s poetry with special emphasis on The Faerie Queene.

412. Milton
Fall, Winter, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Milton’s prose and poetry, especially Paradise Lost.

421. Shakespeare
Fall, Winter, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Study of the following representative plays: Richard II, Richard III, Hamlet, Othello, Julius Caesar, Romeo and Juliet, Twelfth Night, Winter’s Tale, Midsummer-Night’s Dream.

422. Shakespeare
Fall, Winter, Spring, Summer. 4(4-0)
Advanced study of several representative plays exclusive of those taught in 421.

424. Conference Course in Advanced Writing
Fall, Winter, Spring. Summer. 4 credits.
Writing approval of department.
Intended for the student ready to pursue an advanced project in writing. Individual conferences. Approval to enroll requires a conference with the instructor and will usually be on the basis of manuscripts submitted to him. Prior course work in writing will normally be expected.

426A. Comparative Drama
(ENG 429.) Fall. 3(3-0) Majors: 208; others: 6 credits of literature.
Studies in the development of drama: classical and medieval.

426B. Comparative Drama
(ENG 429.) Winter. 3(3-0) Majors: 208; others: 6 credits of literature.
Studies in the development of drama: Renaissance and seventeenth century.

426C. Comparative Drama
(ENG 429.) Spring. 3(3-0) Majors: 208; others: 6 credits of literature.
Studies in the development of drama: neoclassical and romantic.

426D. Comparative Drama
(Eng. 429.) Fall, Spring. 3(3-0)
Majors: 208; others: 6 credits of literature.
The development of drama: Ibsen to World War II.
428. Comparative Drama
Fall, Winter, Spring. 3(3-0) Majors: 208; others: 6 credits of literature.
The development of drama; World War II to the present.

436. Comparative Fiction
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits. Majors: 208; others: 6 credits of literature.

439. British Poetry and Poetic Theory Since 1890
Winter, Summer, 4(4-0) Majors: 208; others: 6 credits of literature.

441. American Literature: Colonial and Revolutionary Period Fall. 4(4-0) Majors: 208; others: 6 credits of literature.
Works of Taylor, Edwards, Franklin, Froude and others.

442. American Literature: Early Romanticism Fall. 4(4-0) Majors: 208; others: 6 credits of literature.
Works of Cooper, Irving, Poe, Emerson, Thoreau and others.

443. American Literature: Later Romanticism Winter, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.

444. American Literature: Realism and Naturalism Fall, Winter, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.

447. Twentieth Century American Fiction Fall, Winter, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Works of Fitzgerald, Remington, Faulkner and others.

448. Twentieth Century American Poetry Fall, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Works of Eliot, Pound, Frost and others.

449. Afro-American Literature I Fall, Winter, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Creative thought of the black American illustrated by the participation of the black man in American culture from beginnings through Harlem Renaissance.

450. Afro-American Literature II Winter, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Creative thought of the black American illustrated by the participation of the black man in American culture—post-World War II.

452. Contemporary Literature Fall, Winter, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Contemporary British or American fiction, drama or poetry.

455. Tudor Literature Fall. 4(4-0) Majors: 208; others: 6 credits of literature.
Poetry, prose and non-Shakespearian drama of the sixteenth century.

458. Early Seventeenth Century Literature Winter. 4(4-0) Majors: 208; others: 6 credits of literature.
Some of the major literary works of 1600-1660.

460. The Age of Dryden and Pope Fall. 4(4-0) Majors: 208; others: 6 credits of literature.
Literature of the Restoration and early eighteenth century, 1660-1744; Dryden, Pope, Swift, and others.

462. The Age of Johnson Spring. 4(4-0) Majors: 208; others: 6 credits of literature.
Literature of the late eighteenth century to 1785; Johnson and his circle, the novelists and others.

485. The English Romantic Period Fall, Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
The beginnings of romanticism; Blake, Wordsworth and Coleridge.

486. The English Romantic Period Fall, Winter, Spring. 4(4-0) Majors: 208; others: 6 credits of literature.
Continuation of 485; Keats, Shelley, Byron.

487. Language and Culture Fall, Spring. 4(3-0) Approval of department required and administered by the Anthropology Department.
A survey exploring the interconnectedness of language and culture. Special areas to be emphasized include: child language learning; linguistic and cultural contact phenomena; "specialized" languages, such as Cant, Argot, Trade Jargon, Lingua Franca; "hybridization" and "substratum"; language and cultural change; a brief examination of theories of origins and of the Sapir-Whorf Hypothesis.

495. Nature of Myth Winter. 3(3-0)
Myth in some of its theoretical aspects, with special reference to the mythical character of literature.

470. Victorian Essayists Fall. Summer of even-numbered years. 4(4-0) Majors: 208; others: 6 credits of literature.
Selected readings from Carlyle, Newman, Arnold, Mill, Hazlitt and other essayists.

471. Victorian Poets Spring. 4(4-0) Majors: 208; others: 6 credits of literature.
Selected readings from Arnold, Browning, Tennyson and other poets.

474. Oral Folklore Spring. 4(4-0)
The nature of oral literature, its social functions, and its use in literature and drama.

476. Canadian-American Studies For course description, see Interdisciplinary Courses.

477. Comparative Epic Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits. Majors: 208; others: 6 credits of literature.
Each term will consider two epics. Fall: Odyssey and the Book of Job; Winter: Dante's Inferno and Milton's Paradise Lost; Spring: Beowulf and The Song of Roland.

478. Methods of Comparative Literature Fall. 3(3-0) Two of the following:
206, 207, 208. Rationale and techniques of study in comparative literature.

479. Classical Christian Contributions to Literary Tradition Spring of odd-numbered years. 3(3-0) Two of the following: 206, 207, 208.
Development and influence of the ideas, forms, and motifs of the ancient world and Christianity in literature of the world.

480. Literary Criticism: Theory and Practice Fall, Spring, Summer. 4(4-0) Senior majors.
A survey of literary theory; critical and historical approaches to literature.

481. Modern Critical Theory Winter. 4(4-0) Senior majors.
An examination of the principal modern theories of literary criticism.

482. Practical Criticism Spring. 4(4-0) 450 or 481.
Literary criticism in response to a given work.

485. The English Novel Through the Eighteenth Century Fall, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Study of such writers as Richardson, Fielding, Smollett, Sterne, Austen, and others.

486. The English Novel in the Nineteenth Century Winter, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Study of such writers as Scott, Dickens, Thackeray, Eliot, Hardy and others.

487. The Modern English Novel Spring, Summer. 4(4-0) Majors: 208; others: 6 credits of literature.
Study of such writers as Conrad, Ford, Joyce, Lawrence and others.

491H. Studies in Period Fall. 4(4-0) May re-enroll for a maximum of 8 credits. To receive credit, both 491H and 492H must be completed satisfactorily. Six credits in English honors courses and approval of the departmental honors advisor.
A two-term study of specific writers in relation to their age is provided by 491H and 492H.

492H. Studies in Period Winter. 4(4-0) May re-enroll for a maximum of 8 credits. To receive credit, both 491H and 492H must be completed satisfactorily. 491H and approval of the departmental honors advisor.
Continuation of 491H.

493H. Studies in Genre Winter. 4(4-0) May re-enroll for a maximum of 8 credits. To receive credit, both 493H and 494H must be completed satisfactorily. Six credits in English honors courses and approval of the departmental honors advisor.
A two-term study of the conventions and techniques of a specific literary genre.
494H. Studies in Genre
Spring. 4(4-0) May re-enroll for a maximum of 8 credits. To receive credit both, 493H and 494H must be completed satisfactorily. 493H and approval of the departmental honors adviser. Continuation of 493H.

498H. Special Topics
Fall, Winter, Spring. 4(4-0) May re-enroll for a maximum of 12 credits. Approval of the departmental honors adviser.

Intensive study of some particular author, theme, problem, or other critical topic.

497H. Senior Honors Essay
Fall, Winter, Spring. 4 to 10 credits. May re-enroll for a maximum of 10 credits. Senior and approval of departmental honors adviser.

A substantial piece of writing under the direction of selected faculty.

499. Senior Prosseminar
Fall, Winter, Spring, Summer. 4(4-0) Senior English majors.

Intensive work in an area, problem or author. Students will work closely with the instructor in the preparation and evaluation of substantial research or critical papers.

800. History of the English Language
Spring, Summer. 3 credits.

801. Old English
Fall, Summer. 3 credits.

Phonology and morphology of English before 1100.

802. Beowulf
Winter. 3 credits.

803. Old English Poetry
Spring. 3(3-0) 802. Studies in Old English poetic literature; selections from the poetry of the Exeter Book or other works exclusive of Beowulf.

804. Middle English
Winter. 3(3-0)

Linguistic study of English writings, 1100-1400.

805. Studies in Comparative Theatre and Drama
(ENG 905.) Fall, Winter, Spring, Summer. 3(3-0) May re-enroll for a maximum of 12 credits. Approval of department. Interdepartmental and jointly administered with the Department of Theatre.

Comparative study of selected playwrights, movements, trends and developments in world drama from the beginnings to the present day.

806. Medieval Languages
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 15 credits.

Gothic, Old Norse, and Old Irish.

807. Advanced Methods of Teaching English as a Second Language
Fall. 3(3-0) 407.

Advanced study of linguistic theory and applications to classroom practice of methods of teaching English as a second language, specifically with regard to oral drill, reading, writing, testing, language and cultural heritage.

810. Medieval Literature
Fall, Winter, Summer. 3(3-0) May re-enroll for a maximum of 6 credits.

Chaucer and the literature of the fourteenth century.

811. Renaissance Literature
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits. English nondramatic literature, 1500-1600.

815. Restoration and Eighteenth Century Literature
Fall, Winter. 3(3-0) May re-enroll for a maximum of 6 credits.

English literature, 1660-1788.

816. Nineteenth Century Literature
Fall, Winter, Spring, Summer. 3(3-0) May re-enroll for a maximum of 9 credits.

English literature, 1798-1900.

821. Nineteenth Century American Literature
Fall, Winter, Spring, Summer. 3(3-0) May re-enroll for a maximum of 9 credits.

American literature, 1820-1900.

824. Seventeenth Century Literature
Winter, Spring. 3(3-0) May re-enroll for a maximum of 6 credits.

English nondramatic literature, 1600-1680, including Milton.

825. Comparative Literature: Studies in Theme and Idea
Fall. 3(3-0) May re-enroll for a maximum of 9 credits. Interdepartmental with the departments of Romance Languages and German and Russian and administered by the Romance Languages Department.

Myths, archetypes, topoi, significant ideas and intellectual currents in different periods and cultural traditions.

828. Colonial and Revolutionary American Literature
Winter. 3(3-0)

American literature, from the beginnings to 1820.

829. Twentieth Century Literature
Fall, Spring. 3(3-0) May re-enroll for a maximum of 6 credits.

English and American literature, 1900 to the present, with attention to foreign backgrounds.

830. Major Writers of American Literature
Fall. 5(5-0) Major in English—Secondary School Teaching or approval of department.

Franklin through Whitman.

831. Major Writers of American Literature
Winter. 5(5-0) Major in English—Secondary School Teaching or approval of department.

Twain to the present.

840. Writing Workshop for Teachers
Fall, Spring, Summer. 5(3-0) May re-enroll for a maximum of 12 credits. Interdepartmental with the German and Russian and Romance Languages Department.

Emphasis on personal and public modes of writing; some discussion of methods of teaching writing; class discussion and evaluation of student writing; individual conferences.

841. Topics in the Teaching of English
Winter, Spring. 3 to 5 credits.

Selected topics and issues in the teaching of English and the language arts. Investigation of problems of special concern to the student/s, especially those directly related to teaching.

845. Approaches to Language
Fall. 3(3-0) Major in English—Secondary School Teaching or approval of department.

Modern linguistic approaches to language and their application to writing.

846. Approaches to Language
Winter. 3(3-0) Major in English—Secondary School Teaching or approval of department.

Continuation of 845.

847. Reading and the English Teacher
Spring, Summer. 5(5-0) Investigation of applied linguistics and psycholinguistics to the reading process with particular emphasis on the application to problems in the teaching of reading and literature.

849. English Teaching Workshop
Fall, Winter, Spring, Summer. 3(3-0)

Workshop in the development of teaching materials and resources in English. Investigation of sources and bibliographies. Emphasis on seeking practical solutions to particular problems in the teaching of English.

855. Shakespeare
Fall, Spring. 3(3-0)

Intensive study of selected plays.

856. Comparative Literature: Literature and Other Disciplines
Winter. 3(3-0) May re-enroll for a maximum of 9 credits. Interdepartmental with the departments of Romance Languages and German and Russian and administered by the Romance Languages Department.

Relations between literature and the sciences and other arts; social, historical, psychological, philosophical bases of literary study.

862. Approaches to Literature
Winter. 5(5-0) Major in English—Secondary School Teaching or approval of department.

Literature through thematic, genre and historical approaches.

871. Methods of Literary Research
Fall, Spring, Summer. 3(3-0)

Bibliography and use of Library; preparation of reports, reviews, and scholarly papers.

878. Comparative Literature: Methods in the Study of Comparative Literature
Fall. 3(3-0) Interdepartmental with the German and Russian and Romance Languages Department.

Rationale and techniques of study in comparative literature.

879. Myth, Ritual and Folklore in Literature
Fall. 3(3-0) May re-enroll for a maximum of 9 credits.

The concepts, scholarship, and methods of study and research in mythology, ritual, and folklore, with special attention to their use in literature and drama.
880. Proseminar for Master's Degree Candidates
Fall, Winter, Spring, Summer. 3(3-0)
Individual scholarly work under guidance.

885. Studies in the History of Literary Criticism
Fall, Winter, Spring, Summer. 3(3-0)
The History of literary criticism.

888. Studies in Modern Criticism
Fall, Winter, Spring, Summer. 3(3-0)
Continuation of 885.

889. College Teaching of English
Fall, Winter, Spring. 1 to 3 credits.
May re-enroll for a maximum of 3 credits.
Graduate assistant.
Supervised teaching of college classes in English language and literature.

891. Research
Fall, Winter, Spring, Summer. Variable credit.
Approval of department.

892. Comparative Literature: Studies in Form and Genre
Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits.
Interdepartmental with the German and Russian Romance Language Departments.
Development and interrelationships of individual and collective forms and genres of literatures of the Western world, including the drama, tragedy, the novel, the short story, the theory and forms of poetry, popular literature, and the tale.

893. Comparative Literature: Studies in Periodization
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits.
Interdepartmental with the German and Russian Romance Language Departments.
Analysis of the manner in which various genres, convention, and the continuing traditions of literature interact with the creative and critical climes of particular periods and movements, such as classicism, the Middle Ages, the baroque, or romanticism, in qualifying or modifying characteristic literary works.

894. Studies in Influence
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits.
Mutual influences of the English, Romance and Germanic literatures in general and in terms of specific authors and literary kinds, together with studies of the intermediaries of transmission, translations and sources.

895. Studies in English Drama
Fall of odd-numbered years. Winter and Spring of even-numbered years. 3(3-0) May re-enroll for a maximum of 9 credits.
Letturgical beginnings to 1842, excluding Shakespeare.

897. Study in Shakespeare
Winter of odd-numbered years. 3(3-0) To receive credit, both 940 and 941 must be completed satisfactorily.

901. Studies in Shakespeare
Spring of odd-numbered years. 3(3-0) To receive credit, both 940 and 941 must be completed satisfactorily.

902. Graduate Reading Course
Fall, Winter, Spring. 1 to 3 credits.
Approval of department.

903. Studies in English Language
Fall, Winter. 3(3-0) May re-enroll for a maximum of 9 credits.
The English language from the viewpoint of historical problems, literary analysis and pedagogical implications.

904. Seminar: Earlier English Literature
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits.
Special problems in English literature, beginnings to 1600.

905. Seminar: Later English Literature
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits.
Special problems in English literature, 1660-1900.

906. Seminar: American Literature
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits.
Special problems in American literature, beginnings to 1900.

907. Seminar: Twentieth Century Literature
Winter, Spring. 3(3-0) May re-enroll for a maximum of 6 credits.
Special problems in English and American literature, 1900 to the present.

908. Seminar: Special Studies in Literary Form and Theory
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits.
Forms, genres, and movements.

909. Research
Fall, Winter, Spring, Summer. Variable credit.
Approval of department.

910. Comparative Literature: Studies in Form and Genre
Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits.
Interdepartmental with the German and Russian Romance Language Departments.
American literature in a cultural context, drawing upon popular and fine arts, the history of ideas, the history of social movements.

911. Seminar: Special Topics in Comparative Literature
Spring, 3(3-0) May re-enroll for a maximum of 9 credits.
Advanced graduate, interdepartmental with the departments of Russian and Romance Languages and German and Russian and administered by the Romance Languages Department.

912. Research
Fall, Winter, Spring, Summer. Variable credit.
Approval of department.

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**ENTOMOLOGY**

**College of Natural Science**

250. Pesticides and Environmental Quality
Winter. 3(3-0)
Impact of agricultural pesticides on man and his environment. Emphasizes the effect of chemicals on food production and combating diseases and ecological imbalance. Presents pesticide alternatives for the future.

301. General Entomology
Fall, Spring. 3(3-0) B S 211 and 212 recommended.

302. General Entomology Laboratory
Fall, Spring. 2(0-6) 301 or concurrently.
Experiments in morphology, physiology, behavior of insects. Populations and classification of major groups.

337. Forest and Shade Tree Entomology
Fall. 4(3-2) Three terms of Natural Science.
Provides an understanding of significance and nature of insect injury to forest and shade trees, based upon morphology, physiology, biology and taxonomy of insects and host. Analyzes biological, chemical, cultural and silvicultural approaches to insect control in order to equip student with competence to carry out survey and action program assignments.

401. Problems
Fall, Winter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 12 credits.
Approval of department.
Advanced individual work on a field or laboratory research problem or a study of published literature on a selected topic.

404. Field Entomology
Summer. 6 credits. One year of ecological science or entomology major in general science or approval of department. Given at W. K. Kellogg Biological Station.
Basic field survey in entomology. Emphasis on the biology, collection and identification of insects common to the Gull Lake Biological Station area.

410. Apiculture and Pollination
Spring. 3(2-2)
Biology of the honey bee and some of the wild bees. Relationships between bees and flowering plants. Value of bees in crop pollination. Introduction to management with visits to the University apiary.

411. Seminar
Fall, Winter. 1(1-0) Major or approval of department.
Reports by students, faculty, and representatives of the profession, with emphasis on current problems not covered in regular college subjects.

418. Systematic Entomology
Winter. 4(1-0) 301, 302.
General taxonomic course to acquaint the student with the various groups of insects.

420. Aquatic Insects
Fall. 4(2-4) 301, 302.
Biology, ecology and systematics of aquatic insects.

421. Stream Ecology
Summer. 3 credits. 420 or approval of department. Given at W. K. Kellogg Biological Station.
An in-depth examination of stream ecosystems—physical, chemical and biological aspects. Field work will be conducted nearest streams. Laboratory exercises will involve manipulations necessary for the determination of population energy budgets, with special emphasis on aquatic insects.