866. Digital Signal Processing  
Spring, 3(3-0) Interdepartmental with Computer Science.  
P: EE 466, EE 863.  
QP: EE 468, EE 456.  

874. Physical Electronics  
Fall, 3(3-0) Applications of quantum mechanics and statistical mechanics in solids. Band theory of semiconductors. Electrical transport phenomena. pn junctions.  
QA: EE 874, EE 876.  

875. Electronic Devices  
Spring, 3(3-0) P: EE 874.  
Operating properties of semiconductor devices including DC, AC, transient and noise models of FET, BJT, metal-semiconductor contact, heterostructure, micro- and photonic devices.  
QP: EE 474 QA: EE 875, EE 876.  

885. Artificial Neural Networks  
Fall, 3(3-0) Interdepartmental with Computer Science.  

909. Master's Thesis Research  
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 24 credits in all enrollments for this course.  
QA: EE 899.  

911. Advanced Topics in Digital Circuits and Systems (MTC)  
Fall, Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Computer Science. Topics vary each semester. Topics such as testable and fault-tolerant digital systems, embedded architectures.  
QP: EE 809, EE 813.  

915. Advanced Topics in Power (MTC)  
Spring, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. Topics vary each semester. Topics such as advanced stability and control of power systems, power system planning, or advanced machine drives.  
QP: EE 823, EE 824 QA: EE 820.  

919. Advanced Topics in Electromagnetics (MTC)  
Spring, 3 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. Topics vary each semester. Topics such as planar waveguides and circuits, antenna theory, geometrical theory of diffraction.  
QP: EE 837 QA: EE 829.  

913. Advanced Topics in Electronic Devices and Materials (MTC)  
Fall, Spring, 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. Topics vary each semester. Topics such as VLSI technology, microdevices and microstructures, properties of semiconductors.  
QP: EE 874 QA: EE 832.  

922. Advanced Topics in Analog Circuits (MTC)  
Spring of even-numbered years. 3(3-0) A student may earn a maximum of 5 credits in all enrollments for this course. Topics vary each semester. Topics such as advanced circuit analysis circuits.  
QP: EE 826.  

963. Advanced Topics in Systems (MTC)  
Fall, Spring, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. Topics vary each semester. Topics such as system identification and adaptive filtering, robot dynamics and control, or learning in artificial neural networks.  

966. Advanced Topics in Signal Processing (MTC)  
Fall, Spring, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. Topics vary each semester. Topics such as discrete time processing of speech signals, multidimensional signal processing, or detection and estimation theory.  

989. Advanced Topics in Plasma (MTC)  
Fall of odd-numbered years. 3(3-0) A student may earn a maximum of 8 credits in all enrollments for this course. Topics vary each semester. Topics such as plasma processing for IC fabrication, plasma diagnostics, and quasi-neutral plasma.  
QP: EE 850 QA: EE 899.  

999. Doctoral Dissertation Research  
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 72 credits in all enrollments for this course.  
QA: EE 999.  

ENGINEERING  

College of Engineering  

150. Engineers and the Engineering Profession  
Spring, 2(2-0) R: Open only to freshmen and sophomores.  

160. Minority Engineering Education Seminar  
Fall, 2(2-0) R: Open only to freshmen in the College of Engineering and to freshmen non-preference students.  
QA: EGR 290.  

200. Technology, Society and Public Policy  
Fall, 2(2-0) P: 2 courses in mathematics or engineering or science. R: Not open to freshmen.  
Description and analysis of certain technologies and their consequences. Development of techniques for assessing consequences as an aid to formulation of public policy.  
QA: EGR 200.  

290. Independent Study  
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Students in College of Engineering, approval of department.  
Independent undergraduate research in engineering.  

291. Selected Topics  
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to freshmen, sophomores.  
Experimental course development or special topics appropriate for freshmen and sophomores.  
QP: EGR 290.  

382. Engineering Cooperative Education  
Fall, Spring, Summer. 1(1-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to students in College of Engineering. Educational employment assignment approved by College of Engineering.  
Pre-professional educational employment experiences in industry and government related to student's major.  
QA: EGR 344.  

ENGLISH  

Department of English  

College of Arts and Letters  

090A. Intensive English for Non-Native Speakers  
Fall, Spring. 0 credit. 12(20-0) See page A-2, item 3.] R: Approval of English Language Center. Explanation and intensive practice of English skills. Focus on intermediate grammar, speaking, listening, reading, and writing.  
QA: ENG 091, ENG 092, ENG 093, ENG 094, ENG 095.  

090B. Intensive English for Non-Native Speakers  
Fall, Spring. 0 credit. 12(20-0) See page A-2, item 3.] R: Approval of English Language Center. Explanation and intensive practice of English skills. Focus on intermediate grammar, speaking, listening, reading, and writing.  
QA: ENG 091, ENG 092, ENG 093, ENG 084, ENG 095.  

090C. Intensive English for Non-Native Speakers  
Fall, Spring. 0 credit. 12(20-0) See page A-2, item 3.] R: Approval of English Language Center. Explanation and intensive practice of advanced grammatical structures of English in relation to written communication. Emphasis on editing skills.  
QA: ENG 091.  

092. Academic oral Skills for Non-Native Speakers of English  
Fall, Spring. 0 credit. 3(3-0) See page A-2, item 3.] R: Approval of English Language Center.  
Intensive speaking and listening practice of spoken academic English. Lectures-listening and note-taking strategies. Oral communication skills improved through discussions and classroom presentations.  
QA: ENG 092.  

093. Academic Reading and Writing Skills for Non-Native Speakers of English  
Fall, Spring, 0 credit. 6(66-0) See page A-2, item 3.] R: Approval of English Language Center.  
Integrative reading and writing strategies for academic purposes. Vocabulary development, intensive and extensive reading for academic purposes.  
QA: ENG 094, ENG 095.  

094. Academic Reading Skills for Non-Native Speakers of English  
Fall, Spring. 0 credit. 3(3-0) See page A-2, item 3.] R: Approval of English Language Center.  
Intensive and extensive reading skills. Vocabulary development, pre-reading strategies, reading for comprehension, and critical reading skills.  
QA: ENG 094.
Descriptions—English of Courses

095. Academic Writing Skills for Non-Native Speakers of English
Fall, Spring. 0 credit. (3-3-0) See page A-2, item 3.) R: Approval of English Language Center. Writing, editing, and revision of journals, essays and research papers. QA: ENG 205

096. Pronunciation and Listening for Non-Native Speakers of English
Fall, Spring. Summer. 0 credit. (3-3-0) See page A-2, item 3.) R: Approval of English Language Center. Practice in pronunciation: discrete sounds, rhythm, and stress. Listening comprehension. Listening for main ideas and details. QA: ENG 209

097. Oral Skills for Foreign Teaching Assistants
Fall, Spring. 0 credit. (3-5-0) See page A-2, item 3.) R: Approval of English Language Center. Practice in English skills for classroom instruction. Pronunciation. Presentations and handling questions. Managing student interactions and classroom situations. QA: ENG 211

102H. Honors Writing Seminar
Fall. 4(4-0) R: Open only to Honors College freshmen or approval of department. Workshop in critical reading and writing emphasizing the problematics of voice and the development of analytic and argumentative skills. Reading and writing in various discursive modes. QA: ENG 101H, ENG 102H

202. Writing Non-Fiction: Processes and Contexts
Fall. 3(3-0) P: Completion of Tier I writing requirement. R: Not open to freshmen. Open only to students in English and to students in English teaching minor. Writing the major forms of non-fiction prose. Emphasis on the diversity of forms non-fiction takes and in the processes experienced writers engage in while composing. QP: ENG 102 QA: ENG 203

203. Genres and Themes
Fall. 3(3-0) R: Not open to students in English and American Studies, and to students in English teaching minor. Texts organized by genre and theme with attention to the historical and cultural perspectives which define them. QA: ENG 206, ENG 207, ENG 208

204. Readings in North American Literature
Fall, Spring. 3(3-0) R: Not open to freshmen. Not open to students with English majors or minors. Selected texts from North American literatures drawn from a variety of historical periods, genres, and cultures, reflecting the diversity of North American experiences. QA: ENG 209

205. Readings in British Literature
Fall, Spring. 3(3-0) R: Not open to freshmen. Not open to students with English majors or minors. Selected texts from British literatures drawn from a variety of genres and historical periods, reflecting the diversity of human experiences and the continuity of human concerns. QA: ENG 210

205H. Honors Studies in Literary Form
Fall. 3(3-0) P: ENG 206H. R: Open only to Honors College students or approval of department. Not open to students with credit in ENG 211H. History and practice of selected genres and modes of literature such as novel, lyric, essay, romance, and satire. Instruction in critical writing.

206. Readings in Contemporary Literature
Fall, Spring. 3(3-0) R: Not open to freshmen. Not open to students with English majors or minors. Selected texts of various genres from contemporary literature written in English, reflecting the diversity of human experiences. QA: ENG 212

210. Introduction to the Study of English
Fall, Spring. 4(4-0) R: Open only to students in English and in American Studies, and to students with a secondary teaching minor in English. Production, interpretation, and dissemination of texts in their political, religious, economic, social, and literary contexts. Introduction to critical methodologies and to writing about texts and modes of discourse. QA: ENG 213

211H. Honors Foundation in Literary Studies
Fall, Spring. 4(4-0) R: Open only to Honors College students or approval of department. Not open to students with credit in ENG 205H. QA: ENG 214

226. Introduction to Creative Writing
Fall, Spring. 4(4-0) R: Not open to freshmen. Open only to students in English. Completion of Tier I writing requirement. Major forms and methods of creative writing: fiction, poetry, drama, narrative essay, and film. QA: ENG 207, ENG 208

229. Introduction to Fiction Writing
Fall, Spring. 4(4-0) P: ENG 210 or ENG 226. R: Not open to freshmen. Open only to students in the College of Arts and Letters. Directed practice in the writing of fiction. Special attention to the types and structures available to the fiction writer. QA: ENG 215 or ENG 216 QA: ENG 227

229A. Introduction to Fiction Writing
Fall, Spring. 4(4-0) P: ENG 210 or ENG 226. R: Not open to freshmen. Open only to students in English and to students with a secondary teaching minor in English. Directed practice in the writing of poetry. Special attention to the types and structures available to the poetry writer. QA: ENG 216, ENG 217, ENG 218 or ENG 226 QA: ENG 228

232. Writing as Exploration
Fall. 3(3-0) P: Completion of Tier I writing requirement. R: Not open to freshmen. Open only to students in English and to students in English teaching minor. Development of writing in creative writing. Study and writing of non-fiction prose that reflects on experience, individual and social. Special attention to autobiography and personal essay. QA: ATL 11X or ATL 12X or ATL 1X or ENG 102 QA: ENG 230

265. Classical Myths and Literature
Fall. 3(3-0) R: Not open to freshmen. Greek myths that have been wrought into later poetry, fiction, drama, painting, sculpture, and music. QA: ENG 255

266. Literary Interpretation of the Bible
Spring. 3(3-0) R: Not open to freshmen. Selections from the Old and New Testaments. Emphasis on major themes, genres, characterizations, and styles. QA: ENG 266

270. Introduction to Film
Fall, Spring. 4(4-0) R: Completion of Tier I writing requirement. Basic concepts and techniques of film analysis and criticism. QA: ENG 234 or ENG 235 or ENG 237 or ENG 238 QA: ENG 212 or AL 210

290. Independent Study
Fall, Spring. 1 to 4 credit. R: Approval of department. Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

302. Introduction to English Language Studies
Fall, Spring. 3(3-0) R: Not open to freshmen. Acquisition of oral and written English. English dialects and styles. Minority dialects and Standard English. Reading and writing English. QA: ENG 302

307. Methods of Teaching English to Speakers of Other Languages
Fall, Spring. 3(3-0) R: Not open to freshmen and sophomores. National and international approaches, methods, materials, settings, needs, and characteristics of TESOL. Survey, evaluation, and application of major effective methods and materials. QA: ENG 307

309. Writing for Precollegiate Students
Fall. 4(4-0) R: Not open to freshmen and sophomores. Completion of Tier I writing requirement. Step-by-step process for organizing and writing a legal argument. Emphasis on logical, clear, and persuasive style. QA: ENG 213 QA: ENG 310

310A. Literature in English to 1660
Fall, Spring. 4(4-0) P: ENG 210. R: Open only to students in English and to students with a secondary teaching minor in English. Cultural contexts, literary tradition, modes of discourse, and genres of literature in English. QA: ENG 206, ENG 207, ENG 208 or ENG 310, ENG 211 QA: ENG 311

310B. Literature in English 1660-1789
Fall, Spring. 4(4-0) P: ENG 210. R: Open only to students in English and to students with a secondary teaching minor in English. Cultural contexts, literary traditions, modes of discourse, and genres of literature in English. QA: ENG 206, ENG 207, ENG 208 or ENG 310, ENG 211 QA: ENG 312

310C. Literature in English 1789-1900
Fall, Spring. 4(4-0) P: ENG 310. R: Open only to students in English and to students with a secondary teaching minor in English. Cultural contexts, literary traditions, modes of discourse, and genres of literature in English. QA: ENG 206, ENG 207, ENG 208 or ENG 310, ENG 211 QA: ENG 313

310D. Literature in English since 1900
Fall, Spring. 4(4-0) P: ENG 310. R: Open only to students in English and to students with a secondary teaching minor in English. Cultural contexts, literary traditions, modes of discourse, and genres of literature in English. QA: ENG 206, ENG 207, ENG 208 or ENG 310, ENG 211 QA: ENG 314

A-52
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>310E</td>
<td>Literature in English: Modern Media and Culture</td>
<td>From beginnings in African oral tradition to the contemporary novel. Autobiography, history, and slave narrative. Syncretic development and production of culture.</td>
<td>ENG 210, ENG 290 or 291, ENG 296 or 297, ENG 311</td>
</tr>
<tr>
<td>350</td>
<td>African-American Literature II</td>
<td>From the ephemeral promises of Reconstruction to the present. Themes include the 'New Negro' movement, the Civil Rights era, and the contemporary Black Writers. Literature.</td>
<td>ENG 210 or 310E. Not open to freshmen. Approval of department for second enrollment.</td>
</tr>
<tr>
<td>361</td>
<td>Chicano and Latino Literatures in English</td>
<td>American multiethnic literatures. Focus on the syncretic experience of early and recent immigrants.</td>
<td>QP: ENG 210 or 310E. Not open to freshmen.</td>
</tr>
<tr>
<td>352</td>
<td>Asian American Writing</td>
<td>A particular genre of popular literature such as science fiction, crime fiction or Gothic, with attention to media other than print.</td>
<td>P: ENG 212 or 210; R: Open only to students in English and in American Studies, and to students with a secondary teaching minor in English. Directed practice in writing clear, concise and effective prose, with special attention to practical forms such as reports, position papers, and proposals.</td>
</tr>
<tr>
<td>353</td>
<td>Women and Literature</td>
<td>Not open to freshmen. Writing by Americans of Asian descent. Attention to historical and cultural contexts.</td>
<td>QP: ENG 310 or 360. Not open to freshmen.</td>
</tr>
<tr>
<td>362</td>
<td>World Literature</td>
<td>Relationship of women to cultural and literary texts, as revealed in literature written by women. Critical responses to these texts. Feminist approaches to literature.</td>
<td>QP: ENG 312 or 377. Not open to freshmen.</td>
</tr>
<tr>
<td>383</td>
<td>Asian Literature in English or in English Translation</td>
<td>Not open to freshmen. Open only to students in the College of Arts and Letters. Works which address material and cultural realities from a global rather than a national or regional perspective. Emphasis on texts, translated into or written in English, from the Orient, the Middle East, Africa, and the Caribbean.</td>
<td>QP: ENG 211 or 290 or 291, ENG 297 or 306 or 311. Not open to freshmen.</td>
</tr>
<tr>
<td>384</td>
<td>African Literature</td>
<td>Open only to students in the College of Arts and Letters. From the oral tradition to the contemporary novel. A particular genre of popular literature such as science fiction, crime fiction or Gothic, with attention to media other than print.</td>
<td>QP: ENG 211 or 290 or 291, ENG 297 or 306 or 311. Not open to freshmen.</td>
</tr>
<tr>
<td>370</td>
<td>Film and Society</td>
<td>Sequential credit. A student may earn a maximum of 8 credits in all enrollments for this course. Approval of department for second enrollment. Approval of department for second enrollment. How films reflect social issues of gender, ethnicity, class, national orientation and handicap status. How film affects and shapes social attitudes.</td>
<td>P: ENG 210 or 310E. Not open to freshmen. Approval of department for second enrollment.</td>
</tr>
<tr>
<td>372</td>
<td>Film Directors</td>
<td>A student may earn a maximum of 8 credits in all enrollments for this course. Approval of department for second enrollment. Approval of department for second enrollment. Themes, awards, significance of specific film directors, with emphasis upon questions of authorship.</td>
<td>QP: ENG 311 or 310E. Not open to freshmen.</td>
</tr>
<tr>
<td>373</td>
<td>The Silent Film</td>
<td>From the oral tradition to the contemporary novel. A particular genre of popular literature such as science fiction, crime fiction or Gothic, with attention to media other than print.</td>
<td>P: ENG 210 or 310E. Not open to freshmen.</td>
</tr>
<tr>
<td>374</td>
<td>Screenwriting</td>
<td>Open only to majors in English and to students with a secondary teaching minor in English. Significant American dramas largely from the twentieth century. Such playwrights as O'Neill, Miller, Williams, Hellman, Oates, Wilder, Albee, and Hansberry, among others.</td>
<td>QP: ENG 211 or 290 or 291, ENG 297 or 306 or 311. Not open to freshmen.</td>
</tr>
<tr>
<td>375</td>
<td>American Fiction</td>
<td>Open only to majors in English and to students with a secondary teaching minor in English. Significant American drama largely from the twentieth century. Such playwrights as O'Neill, Miller, Williams, Hellman, Oates, Wilder, Albee, and Hansberry, among others.</td>
<td>QP: ENG 211 or 290 or 291, ENG 297 or 306 or 311. Not open to freshmen.</td>
</tr>
<tr>
<td>376</td>
<td>American Poetry</td>
<td>Open only to majors in English and to students with a secondary teaching minor in English. Significant American dramas largely from the twentieth century. Such playwrights as O'Neill, Miller, Williams, Hellman, Oates, Wilder, Albee, and Hansberry, among others.</td>
<td>QP: ENG 211 or 290 or 291, ENG 297 or 306 or 311. Not open to freshmen.</td>
</tr>
<tr>
<td>378</td>
<td>American Non-Fictional Prose</td>
<td>Open only to majors in English and to students with a secondary teaching minor in English. Prose writing in America from the time of European settlement to the present, with attention to historical periods, movements, genres, and figures.</td>
<td>QP: ENG 211 or 290 or 291, ENG 297 or 306 or 311. Not open to freshmen.</td>
</tr>
<tr>
<td>379</td>
<td>American Women Writers</td>
<td>Open only to majors in English and to students with a secondary teaching minor in English. Significant American dramas largely from the twentieth century. Such playwrights as O'Neill, Miller, Williams, Hellman, Oates, Wilder, Albee, and Hansberry, among others.</td>
<td>QP: ENG 211 or 290 or 291, ENG 297 or 306 or 311. Not open to freshmen.</td>
</tr>
</tbody>
</table>

393H. Critique of Genre and Form
Fall, 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course.
P: 4 credits of literature. R: Open only to Honors College students or approval of department.
Description approaches the history and practice of genre and form.

394H. Studies in Authorship
Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
P: 4 credits of literature. R: Open only to Honors College students or approval of department.
Intensive study of writings of one or two authors, with attention to critical, historical, and literary concerns, including the question of literary authority.

405. The Development of Modern English
Fall, 3(3-0) R: Not open to freshmen and sophomores.

ENG 406

404. English Dialects
Fall, 3(3-0) R: Not open to freshmen and sophomores.

ENG 407

408. Language Use in the African-American Community
Fall, 3(3-0) R: Not open to freshmen and sophomores.

409. Topics in English Language Studies
Spring, 3(3-0) R: Not open to freshmen and sophomores.
Focus on a major issue in the study of English, such as language planning in the United States, the making and use of dictionaries, and gender and language in English.

410. Socio-Psycholinguistic Approaches to Reading in the Disciplines
Fall, Spring, 4(3-4) P: ENG 302, R: Open only to majors in the Department of English with a teacher certification option.
Reading instruction in English and language arts classrooms. Focus on content reading strategies for diverse populations, literature for children and young adults, reader response theory, and strategies for literacy.

ENG 411

412. Shakespeare
Fall, Spring, 3(3-0) P: 6 credits of English literature. R: Not open to freshmen and sophomores.
Selected plays chosen to represent the different periods of Shakespeare’s career and the genres in which he wrote. Attention to historical and literary contexts.

ENG 413

415. Critical Studies in Language and Literacy
Spring, Fall, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
P: ENG 302 or ENG 408 or ENG 412
Current research in language and literacy, with emphasis on implications for multicultural classrooms.

ENG 416

416. Advanced Fiction Writing
Fall, Spring, 3(3-0) P: ENG 325 or ENG 352
R: Not open to freshmen and sophomores.
Advanced workshop in writing short stories and longer forms of fiction. Reading and analysis of published fiction.

ENG 321

419. Advanced Poetry Writing
Fall, Spring, 3(3-0) P: ENG 329, R: Not open to freshmen and sophomores.
Reading and analysis of original poems. Interdependence of idea and execution in successful poems. Emphasis on craft and poetics.

ENG 330

419A. Comparative Fiction: Western
Fall, Spring, 3(3-0) P: 6 credits of literature. R: Not open to freshmen and sophomores.
Comparative study of fictional narratives from different cultural, literary, and national origins. Focus on European, English, and American literary traditions.

ENG 419

419B. Comparative Fiction: Non-Western
Spring, 3(3-0) P: 6 credits of literature. R: Not open to freshmen and sophomores.

420. 20th Century English Poetry
Fall, Spring, 3(3-0) P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E
R: Not open to freshmen.
Open only to students in English teaching minor. Themes, styles, forms, and aesthetics of poetry from Britain, Ireland, and other English-language countries excluding the United States.

ENG 420

423. Writing and Style
Spring, 3(3-0) P: ENG 236 or ENG 312
R: Not open to freshmen and sophomores.
Open only to students in English and to students in English teaching minor.

ENG 423

424A. Comparative Drama: Classical and Medieval
Fall, 3(3-0) P: 6 credits of English or Theatre. R: Not open to freshmen and sophomores.
Ancient and medieval drama, with special emphasis on Greek tragedy.

ENG 424A

425B. Comparative Drama: Renaissance and Baroque
Spring, 3(3-0) P: 6 credits of English or Theatre. R: Not open to freshmen and sophomores.
The development of European dramatic arts in the sixteenth and seventeenth centuries.

ENG 425B

426. Comparative Drama Based on World War II
Fall, 3(3-0) P: 6 credits of English or Theatre. R: Not open to freshmen and sophomores.
Major themes and developments in American, British, and Continental European drama seen through representative plays of the period.

ENG 426

426E. Comparative Drama: 1945 to the Present
Spring, 3(3-0) P: 6 credits of English or Theatre. R: Not open to freshmen and sophomores.
American, British, and Continental European drama from World War II to the present seen through representative plays of the period.

ENG 426E

426F. Comparative Drama: Indian Subcontinent
Fall, 3(3-0) P: 6 credits of English or Theatre. R: Not open to freshmen and sophomores.
Ancient theatrical traditions in the Indian subcontinent and their relation to modern theatrical practices in the area.

ENG 426F

429. Advanced Fiction Writing
Fall, Spring, 3(3-0) P: ENG 328, R: Not open to freshmen and sophomores.
Advanced workshop in writing short stories and longer forms of fiction. Reading and analysis of published fiction.

ENG 329

430. Advanced Poetry Writing
Fall, Spring, 3(3-0) P: ENG 332, R: Not open to freshmen and sophomores.
Reading and analysis of original poems. Interdependence of idea and execution in successful poems. Emphasis on craft and poetics.

ENG 332

430A. Comparative Fiction: Western
Fall, Spring, 3(3-0) P: 6 credits of literature. R: Not open to freshmen and sophomores.
Comparative study of fictional narratives from different cultural, literary, and national origins. Focus on European, English, and American literary traditions.

ENG 430

430B. Comparative Fiction: Non-Western
Spring, 3(3-0) P: 6 credits of literature. R: Not open to freshmen and sophomores.

431. American Literature to 1820
Fall, 3(3-0) P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E
R: Not open to freshmen.
Open only to students in English and American Studies, and to students in English teaching minor.

ENG 431

432. American Literature: 1820-1865
Spring, 3(3-0) P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E
R: Not open to freshmen.
Open only to students in English and American Studies, and to students in English teaching minor.

ENG 432

433. American Literature: 1865-1990
Spring, 3(3-0) P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E
R: Not open to freshmen.
Open only to students in English and American Studies, and to students in English teaching minor.

ENG 433

434. American Literature: 1865-1990
Spring, 3(3-0) P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E
R: Not open to freshmen.
Open only to students in English and American Studies, and to students in English teaching minor.

ENG 434

Spring, 3(3-0) P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E
R: Not open to freshmen.
Open only to students in English and American Studies, and to students in English teaching minor.

ENG 435
444. American Literature, 1900-1950
Fall, 3(3-0)
P: ENG 210 or ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor. A student may earn a maximum of 6 credits in all enrollments for this course.

445. American Literature since 1950
Fall, 3(3-0)
P: ENG 210 or ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor. A student may earn a maximum of 6 credits in all enrollments for this course.

450. Studies in African American Literature
Spring, 3(3-0)
P: ENG 210, ENG 310B, R: Not open to freshmen and sophomores. Open only to students in English and English Studies, and to students in English teaching minor.

451. Studies in Popular Culture
Spring, 3(3-0)
P: ENG 210, ENG 310B, R: Not open to freshmen and sophomores. Open only to students in English and English Studies, and to students in English teaching minor.

455. British Literary Studies, 1660-1800
Spring, 4(4-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

457. British Literary Studies
Fall, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

458. British Literature in the Age of Restoration
Fall, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

459. Victorian Studies
Spring, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

460. British Literature in the Age of Empire
Spring, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

461. Second-Language Acquisition
Fall, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

462. Studies in the Literature of Africa and the African Diaspora
Spring, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

463. Canadian Literature
Spring, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

464. English—Descriptions of Courses

470. Film Theory and Criticism
Fall, 3(3-0)
P: ENG 210, ENG 310B; one other film course. R: Not open to freshmen and sophomores. Open only to students in English and American Studies, and to students in English teaching minor. A student may earn 6 credits of literature. R: Not open to freshmen and sophomores.

471. Third World Cinema
Fall, 4(4-2)
P: ENG 210, ENG 370 or ENG 371 or ENG 372 or ENG 373 or ENG 371, R: Not open to freshmen and sophomores.

473. Film and Literature
Spring, 3(3-2)
P: ENG 270. R: Not open to freshmen and sophomores. Open only to students in English and American Studies, and to students in English teaching minor.

474. Contemporary African Studies
Fall, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E, R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor. A student may earn a maximum of 6 credits in all enrollments for this course.

476. American Authors
Fall, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor.

477A. Comparative Epic: The Oral Tradition
Fall, 3(3-0)
P: 6 credits of literature. R: Not open to freshmen.

477B. Comparative Epic: The Literary Epic
Spring, 3(3-0)
P: 6 credits of literature. R: Not open to freshmen.

477C. Comparative Epic: India and Iran
Fall, 3(3-0)
P: 6 credits of literature. R: Not open to freshmen.

478. History of Western Literary Criticism
Fall, 3(3-0)
P: ENG 210. R: Not open to freshmen and sophomores. Open only to students in English and American Studies, and to students in English teaching minor.

480. Historical Writing of Western Literary Criticism
Fall, 3(3-0)
P: ENG 210, ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E. R: Not open to freshmen. Open only to students in English and English Studies, and to students in English teaching minor. A student may earn a maximum of 6 credits in all enrollments for this course. Sources of the practice and theory of literary criticism in the West including the development of modern critical essays in the work of Dryden, Johnson, Coleridge, Arnold, Eliot. Cambridge English, American New Criticism. Poststructuralism and postmodern perspectives. R: Not open to freshmen and sophomores.

QP: ENG 208 or ENG 211 QA: ENG 480

A-55
481. Modern Critical Theory
Spring, 3(3-0)
P: ENG 210, R: Not open to freshmen and sophomores.
Open only to students in English and American Studies, and to students in English teaching minor.
Current ways of reading, including backgrounds in formalist, linguistic, hermeneutical, feminist, Marxism, psychoanalytical, and post-colonial critical discourses.
QP: ENG 208 or ENG 211 QA: ENG 481

482. Theory and Practice of Feminist Literary Criticism
Spring, 3(3-0) Interdepartmental with Women's Studies
P: ENG 323 or WS 202, R: Not open to freshmen and sophomores. Open only to students in English and Women's Studies, and to students in English teaching minor.
Feminist literary critical theory and its implications for reading and studying literature.
QP: ENG 342, WS 201 QA: ENG 492

489. Literature and Medicine
Spring, 3(3-0) Interdepartmental with Lyman Briggs School and Psychology.
P: Not open to freshmen and sophomores. Human dimensions of medicine as seen in literature.
QA: ENG 484

Fall, 3(3-0)
P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E; R: Not open to freshmen.
Open only to students in English and to students in English teaching minor.
The early development of British prose fiction, focusing on the historical conditions of its production and reception, and its relationship to other modes of cultural discourse.
QP: ENG 208 or ENG 211 QA: ENG 485

496. Development of the British Novel, The 19th Century
Fall, 3(3-0)
P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E; R: Not open to freshmen.
Open only to students in English and to students in English teaching minor.
Artistic and cultural dynamics of novels by Austen, the Brontes, Dickens, Eliot, Gaskell, Hardy, Meredith, Morre, Thackeray, Trollope, Ward, and Wilde.
QP: ENG 208 or ENG 211 QA: ENG 496

497. The 20th Century English Novel
Fall, 3(3-0)
P: ENG 210; ENG 310A or ENG 310B or ENG 310C or ENG 310D or ENG 310E; R: Not open to freshmen.
Open only to students in English and to students in English teaching minor.
English-language novels of Britain, Ireland, and other countries influenced by England, exclusive of the United States.
QP: ENG 208 or ENG 211 QA: ENG 497

499H. Senior Honors Independent Project
Fall, Spring, 2 to 4 credits.
P: Open only to Honors College majors in English or approval of department.
A substantial critical essay, a comparable essay arising from an internship, equivalent creative writing, or a similar project. Writing supervised by a faculty advisor.
QA: ENG 497H

490. Independent Study
Fall, Spring, 1 to 4 credits.
P: Open only to graduate students in College of Arts and Letters.
R: Not open to freshmen and sophomores. Approval of department.
Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.
QA: ENG 407
829. 20th Century American Literature
Fall, Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English or approval of department.
Topics include important writers, genres, periods, and movements in significant aspects of twentieth century American literature.
QA: ENG 829

830. 20th Century English Literature
Fall, Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
Literature of Great Britain and Ireland and the Anglophone literatures influenced by them.
QA: ENG 829

832. Poetry Writing Workshop
Fall, 3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to graduate students in creative English-Creative Writing. Approval of department.
A workshop in writing and reading poetry.
QA: ENG 832

835. Fiction Writing Workshop
Fall, 3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to graduate students in creative English-Creative Writing. Approval of department.
A workshop in writing and reading fiction.
QA: ENG 835

837. Drama Writing Workshop
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in creative English-Creative Writing. Approval of department.
Concentration on each student's writing through workshop discussion and conferences with instructor.
Attention to professional contemporary drama.
QA: ENG 837

840. Writing Workshop for Teachers
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
Examination of techniques for teaching. Directed practice in writing.
QA: ENG 840

841. Topics in the Teaching of English
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English and in Literacy Instruction.
Selected topics and issues in the teaching of English and the language arts.
QA: ENG 841

843. Variation in English
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
Effects on English of geographic, ethnic, social, and gender variables. Attitudes toward variation. Usage and language standards.
QA: ENG 843

845. Approaches to the English Language
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
The linguistic study of English. Basic terms and concepts in phonology, syntax, and discourse. Acquisition and variation. Discourse processes and structures.
QA: ENG 845

846. English Structures and Functions
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to master's students in English.
The teaching of English to Speakers of Other Languages. Phonological, morphological, grammatical, lexical, discourse and communicative systems of English, including historical origins and social, regional, and gender variations. Application to the teaching of English to speakers of other languages.
QA: ENG 846

847. Reading and the English Teacher
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English and Literacy Instruction.
Handing process and reading instruction as they relate to the teaching of English in secondary schools, colleges, and universities.
QA: ENG 847

848. Analysis of English Discourse
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
Oral and written narratives and conversations. Comparison of discourse structures among cultures, subcultures, and genders. Applications to medical, classroom, second-language, and literary discourse.
QA: ENG 848

850. African American Literature
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
African American literature, critical reception, and cultural production. Emphasis varies among particular writers, periods, genres, or themes.
QA: ENG 850

855. Shakespeare
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English and approval of department.
Intensive study of selected plays or poems.
QA: ENG 855

862. Approaches to the Teaching of Literature
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
Critical theoretical approaches to and techniques for teaching literature.
QA: ENG 862

863. The Literatures of Africa and the Diaspora
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in College of Arts and Letters.
Literature of Africa and the Diaspora with emphasis on Third World critical approaches, non-canonical perspectives, and problems.
QA: ENG 863

865. Anglophone Literature of South Asia
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in College of Arts and Letters.
Interdepartmental with Linguistics. Anglophone literature of South Asia. Special attention to literary traditions of India.
QA: ENG 865

871. Introduction to Critical Methodology and Research
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
Research methods, modes of critical discourse, textual study, and scholarly writing.
QA: ENG 871

872. Methods of Research into Language Learning and Literacy
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
Concepts and procedures for designing, evaluating, and conducting applied research in English education.
QA: ENG 872

875. College Teaching of English Language and Literature: Reading
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English and Literacy Instruction.
Integration of the teaching of reading and writing. Application of research to the teaching of reading.
QA: ENG 895B

876. College Teaching of English Language and Literature: Writing
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English, American Studies, and Literacy Instruction.
Integration of the teaching of writing and reading. Application of research to the teaching of writing and composition.
QA: ENG 885C

877. Myth, Ritual, and Folklore in Literature
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in College of Arts and Letters.
Scholarship in mythology, ritual, and folklore and its use in literature and drama.
QA: ENG 877

885. History of Literary Criticism
Fall, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
Major traditions, concepts, terminologies, and problems in the history of literary criticism from classical antiquity to the early 20th century.
QA: ENG 885

886. Modern Criticism
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies or approval of department.
Modern and postmodern critical theory. Structuration and poststructuralism. Psychological, feminist, Marxist, formalist, postcolonial, and historical critical discourse.
QA: ENG 886

890. Independent Study
Fall, Spring, Summer. 1 to 6 credits.
R: Open only to graduate students in English.
A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies or approval of department.
Special project, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.

891. Special Topics in American Literature
Fall, Spring, Summer, 3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies or approval of department.
A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies or approval of department.
Special project, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.

898. Master's Research
Fall, Spring, Summer. 1 to 6 credits.
R: Open only to graduate students in English and American Studies.
A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies. Approval of department.
Directed research in support of Plan B master's degree requirements.

899. Master's Thesis Research
Fall, Spring, Summer. 1 to 6 credits.
R: Open only to graduate students in English and American Studies.
A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies. Approval of department.
Directed research leading to a master's thesis, used in partial fulfillment of Plan A master's degree requirements.

905. Studies in Shakespeare
Spring, 3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English.
A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students in English.
A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies. Approval of department.
Issues in Shakespeare studies of critical and current interest.
QA: ENG 905

QA: ENG 855

A-57
Descriptions—English

Courses

975. The Reading Process and the Concept of Literature
Spring, 3(3-0)
R: Open only to doctoral students in English. Approval of department.
Contributions of language and literary studies to research into the reading process and definitions of literacy.
QA: ENG 975

989. Studies in Rhetoric
Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies. Approval of department.
Historical and theoretical perspectives on the traditions of rhetoric.
QA: ENG 980

990. Independent Study
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to doctoral students in English. Approval of department.
Special project, directed reading, and research arranged by an individual doctoral student and a faculty member in areas supplementing the regular course offerings.

991A. Topics in English Language Studies
Fall, Spring, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to graduate students in English and American Studies. Approval of department.
A major issue in the study of English such as language planning in the United States, power and status in English discourse, or literary applications of linguistic analysis.
QA: ENG 907

991B. Topics in Comparative Literature
Fall, Spring, 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course. Interdepartmental with Romance Language Courses and Linguistics.
R: Open only to Ph.D. students. Approval of department.
Critical approaches to genre, periodization, and influence in English and other literatures.
QA: ENG 909

991C. Topics in African American Literature
Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Romance Language Courses, and Linguistics and Languages.
R: Approval of department. Authors, movements, and cultures of the literature of Africa and the African diaspora.

991D. Topics in the Literature of Africa and the African Diaspora
Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Romance Language Courses, and Linguistics and Languages.
R: Approval of department. Authors, movements, and cultures of the literature of Africa and the African diaspora.

991E. Topics in Anglophone South Asian Literature
Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Linguistics and Languages.
R: Open only to graduate students in College of Arts and Letters. Approval of department.
Analysis of an area of South Asian literature written in English.

992A. Seminar in English Education
Fall, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to doctoral students in English. Approval of department.
The teaching of English literature, language, and composition.
QA: ENG 983

992B. Seminar in English as a Second Language
Fall, 3(3-0)
R: Open only to doctoral students in English. Approval of department.
Contemporary theories and issues relating to learning English as a second language.
QA: ENG 987

992C. Seminar in Earlier English Literature
Fall, Spring, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to doctoral students in English. Approval of department.
Special problems in English literature, beginnings to 1660.
QA: ENG 581

992D. Seminar in Later English Literature
Fall, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to doctoral students in English. Approval of department.
British literature 1660-1900. Culture and society, periodization and genres.
QA: ENG 992

992E. Seminar in 20th Century English Literature
Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to doctoral students in English. Literature of Great Britain, Ireland, and other Anglophone countries, exclusive of the United States.
QA: ENG 994

992F. Seminar in American Literature to 1900
Fall, Spring, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to doctoral students in English. Approval of department.
Issues in American literature of critical and current interest.
QA: ENG 993

992G. Seminar in 20th Century American Literature
Fall, Spring, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to doctoral students in English. Approval of department.
A particular problem, topic, theme, genre, issue, or period in twentieth century American literature.
QA: ENG 994

992I. Seminar in Literary Form and Theory
Fall, Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to doctoral students in English. Approval of department.
Theories of periodization, genre, form, signification, and cultural production which influence the study of literature and language.
QA: ENG 985

998. Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 36 credits in all enrollments for this course.
R: Open only to doctoral students in English.

ENTOMOLOGY

Department of Entomology
College of Natural Science

205. Pests, Society and Environment
Fall, Spring, 3(3-0) Interdepartmental with Botany and Plant Pathology.
Nature of pests and their impact on society. Principles of integrated pest management and environmental quality.
QA: ENT 201, ENT 250

401. Directed Studies
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
R: Approval of department.
Individual field or laboratory research, or review of published literature, on a topic of interest.

404. General Entomology
Fall, 403-3 Summer of even-numbered years: 4 credits. Given at W.K. Kellogg Biological Station.
P: BS 110
Biological relationships of insects to the environment. Evolution, behavior, ecology, nematoclassification, importance to humans, and pest management.
QA: BS 212 QA: ENT 301, ENT 302, ENT 425

410. Agriculture and Pollination
Fall, 2(1-2)
Biological of bees and their relationship to flowers, pollination, and crop production.
QA: ENT 410

442. Concepts of Biological Information Systems
Spring, 3(3-0)
R: Open only to seniors and graduate students. Systems approach to managing biological information using computer technology.
QA: SYS 442, SYS 843

460. Medical and Veterinary Entomology
Spring, 3(3-0)
P: BS 110 R: Open only to juniors and seniors. Insects and other organisms related to human and animal health. Entomoparasites, ecology of vectorborne diseases, epidemiology, and management of arthropod vectors.
QP: ENT 401, ENT 302 QA: ENT 460

470. General Nematology
Spring of even-numbered years. 3(2-3)
P: BS 110 or BS 111
Biological of nematodes with special reference to the influence of phytoparasitic, entomopathogenic, animal parasitic, microbiotrophic and marine species on human ecology.
QP: ENT 401 or BS 211 or BS 212 QA: ENT 470

477. Pest Management I: Pesticides in Management Systems
Fall, 3(3-0) Interdepartmental with Horticulture, Crop and Soil Sciences, and Fisheries and Wildlife.
P: CSS 143; BOT 405 or CSS 402, ENT 404 or ENT 470 or FW 359.
Chemical, efficient use, environmental fate, and legal aspects of pesticides.
QP: CSS 143, HRT 402 or ENT 425 or CSS 422 or BOT 405 QA: NCS 445

478. Pest Management II: Biological Components of Management Systems
Spring, 3(2-3) Interdepartmental with Horticulture, Crop and Soil Sciences, Fisheries and Wildlife, and Forests.
P: ENT 404 or ENT 470 or BOT 405 or CSS 422 or FW 328
Principles of host plant resistance and biological control and their relationship to the design of agroecosystems. Classification of invert insect biological control agents.
QP: ENT 425 or CSS 402 or ENT 470 or BOT 405 QA: NCS 446

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