855. Shakespeare
Fall, 3(4-0) Major in English—Secondary School Teaching or approval of department.
Intensive study of selected plays.

861. Library Methods—Secondary Schools
Spring, 3(2-0) Major in English—Secondary School Teaching or approval of department.
Uses of the library; book selection and ordering.

862. Approaches to Literature
Winter, 5(4-0) 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.

880. Proseminar for Master's Degree Candidates
Fall, Winter, Spring, Summer, 3(3-0)
Individual study with guidance of instructor.

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

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

902. Studies in Form and Genre
Fall, Winter, Spring, 3(3-0) Major in English—Seconda 5 credits. May re-enroll for a maximum of 9 credits.
Development and interrelationships of 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.

903. Studies in Periodization
(C L 903) Fall, Winter, Spring, 3(3-0) May re-enroll for a maximum of 9 credits.
Analysis of the manner in which various genres, conventions and continuing traditions of literature interact with the creative and critical climate of particular periods and movements, such as classicism, the Middle Ages, the baroque, or romanticism, in qualifying or modifying characteristic literary works.

904. 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.

905. Studies in Comparative Drama
(C L 905) Fall, Winter, Spring, 3(3-0) May re-enroll for a maximum of 9 credits. Approval of department.
Comparative study of selected playwrights, movements, trends and developments in world drama from the beginnings to the present day.

930. 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.
Lectured beginning to 1642, excluding Shakespeare.

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

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

970. Graduate Reading Course
Fall, Winter, Spring, Summer. 1 to 5 credits. Approval of department.
Supervised reading course in English and American literature for Ph.D. candidates.

972. Rationale of Literary Research
Spring, 3(3-0) Candidacy for the Ph.D. degree.
Principles and methods of research in literary problems.

981. Seminar: Earlier English Literature
Fall, Winter, Spring, 3(3-0) May re-enroll for a maximum of 6 credits.
Special problems in English literature, beginning to 1600.

982. Seminar: Later English Literature
Fall, Winter, Spring, 3(3-0) May re-enroll for a maximum of 9 credits.
Special problems in English literature, 1600-1900.

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

984. 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.

985. 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.

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

337. Forest and Shade Tree Entomology
Fall, 4(3-2) N S 193.
Provides an understanding of significance and nature of insect injury to forest and shade trees, based upon morphology, physiology, biology and taxonomy of insect 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 18 credits. Approval of department.
Advanced individual work on a field or laboratory research problem in a study of published literature on a selected topic.

404. Field Entomology
Summer, 6 credits. One year of zoological science or teaching 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(3-0)
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, 3(1-0) Majors 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.

430. Economic Entomology
(300) Winter, 3(2-3) 301, 302.
Recognition, life histories, behavior, ecology and integrated control of insects of economic importance.

438. Taxonomy of Immature Insects
Spring of even-numbered years. 4(1-9)
Identification of immature insects with particular emphasis on the Holometabola.

440. External Morphology of Insects
Fall, 4(2-0) 301, 302, or approval of department.
Morphological concepts of external skeletal parts of insects. Emphasis on evolutionary development of structures from the Apterygota through the Pterygota.

441. Internal Morphology
Winter, 4(2-0) 440 or approval of department.
Morphology of the internal structure of insects. Emphasis on the evolutionary development of organs and organ systems of various representative insects.
450. Insect Physiology
Spring. 4(3-2) 441; PSL 412; 1 year of chemistry or approval of department.
Comparative physiology of insects with histological and functional aspects of organs and organ systems.

460. Medical Entomology
Winter. 4(3-3) 301, 302, or approval of department.
Distribution and biology of important arthropod vectors of diseases to man, disease symptoms, life cycle of the infectious agent, reservoirs, urticating arthropods, anaphylactic reactions, myiasis, and prophylactic measures.

470. Agricultural Nematology
Winter of odd-numbered years. 3(2-3)
Biological, taxonomy and control of plant parasitic, insect parasitic, and saprophytic nematodes.

505. Advanced Taxonomy
Fall, Winter, Spring. 4(1-2) May re-enter for a maximum of 24 credits. 419, 440.
Classification in depth of a single order of insects, including comparative morphology of the group and survey of recent and classical literature.

811. Ecology of Aquatic Insects
Summer of every third year; given in 1969. 3 credits. 429 or approval of department. Given at W. E. Kellogg Biological Station.
Aquatic insects, their physiology, distribution, and density. Preparation of energy budgets for natural populations.

820. Insect Ecology
Spring of odd-numbered years. 3(2-3) 430; BOT 450.
Insects and various invertebrates in relation to their environment. Factors affecting populations, specialization and distribution. Application of basic ecological principles to integrated control measures.

830. Insect Biochemistry
Spring of even-numbered years. 5(3-6) 430; BCH 401.
Energy metabolism, intermediary metabolism and the biochemistry of development in insects; stresses biochemical differences between insects and higher animals.

838. Principles of Taxonomy
Spring of odd-numbered years. 3(3-0)
Twenty credits in zoology and/or entomology, or approval of department.
Methods and principles of systematic zoology and entomology, including a historical survey of the pre-Linnaean and post-Linnaean systems of classification. International rules of zoological nomenclature and their emendations.

840. Insect Toxicology
Winter of odd-numbered years. 5(3-6)
301, 302; organic chemistry.
Chemical and physical properties of insecticides, relationships of chemical structure to mode of action, and physiological basis of toxicological action.

860. Insects in Relation to Plant Diseases
Winter of even-numbered years. 4(2-4) 430; BOT 405.
Relationships of insects, mites and nematodes to important plant diseases incited by bacteria, fungi, viruses and toxins. Mode of transmission and means of control. Transmission techniques and important plant-pathogen-insect relationships.

870. Topics in Entomology
Fall, Winter, Spring. Summer. Variable credit. Majors or approval of department. Advanced work in medical entomology, acarology, advanced insect entomology, soil arthropods, behavior and biological control.

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

940. Analytical Techniques for Bioactive Compounds
Fall. 3(1-6)
Organic chemistry, approval of department. Application, extraction, cleanup and purification techniques employed in analysis of biologically active compounds. Stresses use of radioisotopes, and columns, papers, thin-layer, and molecular sieve chromatography.

941. Analytical Techniques for Bioactive Compounds
Winter. 3(1-6) 940.
Analytical techniques used for identification and quantitation of biologically active compounds. Emphasis on spectroscopy and gas-liquid chromatography.

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

EXTENSION PERSONNEL DEVELOPMENT

College of Agriculture and Natural Resources

801. Seminar in Cooperative Extension Service
Fall, Winter, Spring. 1 to 3 credits. Approval of department.

880. Special Problems
Fall, Winter, Spring. Summer. Variable credit. May re-enroll for a maximum of 6 credits.
Supervised readings and independent study of selected topics varying from term to term: application of social research to extension, marketing and 4-H programs, and special problem papers.

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

FAMILY AND CHILD SCIENCES

College of Home Economics

145. Relationships in the Modern Family
Fall, Winter, Spring. 3(3-0) Freshmen or Sophomores; approval of department. Students may not receive credit in both 145 and SW 228.
Family relationships throughout the life cycle. Changing nature of families in contemporary society, appraisal of attitudes and roles in family living; development of realistic patterns for courtship and marriage in an increasingly complex world.

439. Consumer Economic Problems
Fall, Spring. Summer. Odd-numbered years. 3(3-0) 438 or approval of department.
Current aspects of consumer behavior including motivation, credit buying, and selected economic problems.