447. Philosophy of Mind
Winter, Spring. 4(3-0) Three credits in philosophy at 300 level or higher or 9 credits in philosophy or approval of department.
Examinations of contemporary treatments of such concepts as 'mind', 'self', 'intentionality', 'mental act', and associated problems (the body-mind relation, 'thinking machines', the connection of thought with action, etc.).

450. History of Esthetic Theory
Spring. 4(3-0) Three credits in philosophy at 300 level or higher or 9 credits in philosophy or 9 credits in art, music or literature or approval of department.
Poetics of Aristotle and the tradition which it has generated are studied in connection with political, law, and fine arts.

460. Moral and Political Issues
Fall, Spring. 4(3-0) Three credits in philosophy at 300 level or higher or 9 credits in philosophy or approval of department.
Philosophical aspects of such issues as freedom of speech and action, civil disobedience, violence, war, justice, and equality, human rights and punishment.

461. Ethical Issues in Nursing
Winter. 2-3(0) PHL 340 or approval of instructor.
Application of ethical analysis, principles, and reasoning to nursing quandaries such as patient rights, truthfulness, coercion, confidentiality, and autonomy in the nursing context.

471. Philosophy of Mathematics
Spring. 4(4-0) PHL 337 or LBS 372 or MTH 471 or approval of department.
An analysis of the nature of mathematical truth. The theses of logicism, formalism, intuitionism, and conventionalism are critically examined.

480. The Nature of Scientific Theory and Explanation
Winter. 4(3-0) PHL 337 or approval of department.
Topics such as: the logical structure of scientific theories, empirical meaningfulness and testability, deductive and probabilistic explanation, prediction.

481. Foundations of Scientific Inference
Spring. 4(3-0) PHL 337 or approval of department.
Topics such as: discovery vs. validation of theories, probability, induction and confirmation theory.

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

485. Philosophy of the Social Sciences
Spring. 4(3-0) Three credits in philosophy at 300 level or higher or 9 credits in philosophy or 9 credits, other than basics, in social science or approval of department.
Selected problems in the methodology of the behavioral sciences, including such topics as: concept formation and theory construction, explanation and insight, subjectivity and value judgements, emergence and teleology, historicism, reductionism, measurement, and statistical inference.

490. Individual Reading
Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 12 credits.
Approval of department.
Supervised reading on a particular author or topic.

494. Special Topics
Fall, Winter, Spring. 2-2-0 to 8-8-0. May reenroll for a maximum of 12 credits if different topics are taken. Approval of department.
Intensive study of some particular problem or author in philosophy.

495. Proseminar
Winter, Spring. 1 credit. May reenroll for a maximum of 3 credits.
Juniors. Fifteen credits in philosophy or approval of instructor. Each section will examine a particular topic or author. Emphasis on discussion of student papers.

805. Business Ethics
Spring. 4(4-0) Graduate student in the College of Business or approval of instructor. Interdepartmental with the Department of General Business-Business Law Programs.
The ethical dimensions of such topics as corporate responsibility, preferential hiring, profit and taxation, deception and bribery, self-regulation versus government regulation, 'caseworking', and advertising. Readings from philosophical and business sources.

825. Seminar in the History of Philosophy
Fall, Winter, Spring. 4(3-0) May reenroll for a maximum of 12 credits. Approval of department.

830. Seminar in Ethics
Winter. Spring. 4(3-0) May reenroll for a maximum of 12 credits. Approval of department.

837. Seminar in Logic
Fall. 4(3-0) May reenroll for credit. Approval of department.

841. Seminar in Epistemology
Fall, Winter, Spring. 4(3-0) May reenroll for a maximum of 12 credits. Approval of department.

845. Seminar in Metaphysics
Fall, Winter, Spring. 4(3-0) May reenroll for a maximum of 12 credits. Approval of department.

850. Seminar in Aesthetics
Fall. 4(3-0) May reenroll for a maximum of 12 credits. Approval of department.
The nature of aesthetic values, grounds of criticism, function of the arts, etc.

860. Seminar in Social Philosophy
Spring. 4(3-0) May reenroll for a maximum of 12 credits. Approval of department.
Philosophy of law and of the state.

870. Seminar in the Philosophy of Language
Fall. 4(3-0) May reenroll for a maximum of 12 credits. Approval of department.
Concrete bases of language and nature of meaning.

PHYSICAL SCIENCE

College of Natural Science

The content of 405, as well as the problems course, 890, may vary from term to term.
Brochures giving detailed information about individual courses are available in the College of Natural Science and the Office of the Assistant Dean for Lifelong Education. These courses are primarily designed for inservice teachers and interested adults and are offered in off-campus locations.

203. Foundations of Physical Sciences
Fall, Winter, Spring. Summer. 4(3-3) 12 credits of Natural Science.
An introduction to physical science for non-science majors. Emphasis is on basic concepts relating to human interaction with the physical environment. Topics selected from physics, chemistry, and the earth and space sciences.

405. Topics in Physical Science
Fall, Winter, Spring. Summer. 1 to 3 credits. May reenroll for a maximum of 6 credits if different topic is taken. Approval of department.
Presentation of single topics from the physical sciences by senior faculty and guest lecturers. Topics are selected to facilitate development of strong physical science programs in schools.

430. Planetarium and Classroom Instruction
Summer. 4(3-2) AST 118 or AST 218 or AST 328.
Practical operation, techniques, and methods of instruction for astronomy and other sciences in the planetarium theater and the classroom.

431. Problems in Planetarium Education
Fall, Winter, Spring. Summer. 1 to 3 credits. May reenroll for a maximum of 6 credits. Approval of department.
Individual study, training, or project under the direction of a faculty member. Often the training will be in the area of actual delivery of planetarium presentations.

890. Problems in Physical Science
Fall, Winter, Spring. Summer. 1 to 12 credits. May reenroll for a maximum of 15 credits. Bachelor's degree in a physical science.