803. Sculpture
Fall, Winter, Spring, Summer. 3 to 12 credits.
Advanced work in a variety of three dimensional media with strong emphasis on individual development.

804. Ceramics
Fall, Winter, Spring, Summer. 3 to 12 credits.
Advanced work in pottery involving a variety of experiences and leading to independent development.

805. Serigraphy
Fall, Winter, Spring, Summer. 3 to 12 credits.
Work in silk screen printing techniques leading to independent expressive development.

806. Graphic Design
Fall, Winter, Spring, Summer. 3 to 12 credits.
Advanced work in all phases of the area of graphic design leading to independent development.

807. Industrial Design
Fall, Winter, Spring, Summer. 3 to 12 credits.
Advanced study in the areas of design analysis and product development with emphasis on continued independent development.

808. Jewelry and Metal
Fall, Winter, Spring, Summer. 3 to 12 credits.
Advanced work in jewelry and metal, and other related areas leading to continued independent development.

809. Etching
Fall, Winter, Spring, Summer. 3 to 12 credits.
Work in etching leading to expressive independent development.

810. Lithography
Fall, Winter, Spring, Summer. 3 to 12 credits.
Work in lithographic techniques leading to expressive independent development.

820. Problems in Art Education
Fall, Winter, Spring, Summer. 1 to 5 credits.
May re-enroll for a maximum of 10 credits. 421 or 422 or a bachelor's degree in art from an accredited institution.

821. Art Instructional Media Laboratory I—Multimedia
Fall, Winter, Spring, Summer. 4(1-9)
May re-enroll for a maximum of 8 credits. Approval of department.
Investigation of multimedia techniques as media of artistic expression and communication for application to art education or related fields.

822. Art Instructional Media Laboratory II—Television
Fall, Winter, Spring, Summer. 4(1-9)
May re-enroll for a maximum of 8 credits. Approval of department. Interdepartmental and jointly administered with the Department of Television and Radio.
Analysis of teaching video tapes and television programs in art. Utilization of television as a medium of artistic expression and communication for application to art education or related fields.

825. Seminar in Art Education
Fall, Winter, Spring, Summer. 2 to 4 credits. May re-enroll for a maximum of 8 credits. Approval of department.
Examination and discussion of contemporary thought in the field of art education. Current problems examined within an interdisciplinary framework.

826. Critical Theory and Aesthetic Experience in Art Education
Fall, Winter, Spring, Summer. 3(3-0)
Approval of department.
Theories of art criticism and aesthetic experience. Organization of these concepts for application to art education programs or related fields.

827. Curriculum Design for Art Education
Fall, Winter, Spring, Summer. 3(3-0)
Approval of department.
Factors affecting art curriculum; analysis, preparation and evaluation.

828. Research Methods for Art Education
Fall, Winter, Spring, Summer. 3(3-0)
Approval of department.
Orientation to research; designs and methodologies applicable to the study of problems in art education.

840. Teaching Seminar—Art Practice
Fall, Winter, Spring, Summer. 1 to 3 credits. May re-enroll for a maximum of 6 credits. Approval of department.
Supervised teaching of college classes in art practice.

899. Research
Fall, Winter, Spring, Variable credit. May re-enroll for a maximum of 12 credits. Approval of department.

ARTS AND LETTERS

College of Arts and Letters

390H. Perspectives in Literature
Fall. 4(3-0) Juniors, approval of the Honors College.
Attention will be focused on several major literary works. Students will employ various types of literary analysis, considering theme, ideas, structure, etc., and examining some major trends in contemporary literary criticism.

391H. Perspectives in Philosophy
Winter. 4(3-0) Juniors, approval of the Honors College.
The two primary areas of concern will be ethics and aesthetics, the emphasis on one or the other to be determined by the professor. The course will include reading of major works, discussion of major figures in the field, and the preparation of a substantial paper.

392H. Perspectives in History
Spring. 4(3-0) Juniors, approval of the Honors College.
The focus will be on the nature of international diplomacy in the 20th century, the development of nationalism, the balance of power system, the influence of new ideologies, and the developments of the power structure since 1945.

450. Arts Management
Fall, Winter, Spring. 3 to 5 credits.
May re-enroll for a maximum of 9 credits. Seniors or Graduate Students or approval of department.
Administration of arts organizations, management of facilities, understanding operational methods and procedures of performing companies, financial structure and funding of arts centers, study of audience development, contemporary trends in arts management field.

999. Research
Fall, Winter, Spring, Summer. Variable credit. May re-enroll for maximum of 36 credits. Approval of college.

ASTRONOMY AND ASTROPHYSICS

AST

College of Natural Science

117. Introductory Observing
Spring. 10(4-0) 119, or 217, or 229 or concurrently.
Observations of celestial objects, constellation identification, and occasional planetarium exercises.

119. General Astronomy
Fall, Winter, Spring. 4(4-0)
Not open to engineering or physical science majors or minors.
Physical nature of solar system, star clusters, and galaxies as seen by modern astronomers. Limited opportunity for astronomical observations.

120. Topics in Astronomy
Winter. 4(4-0) 119.
Detailed qualitative discussion of currently interesting topics in astronomy. Quasars, pulsars, black holes, planetary exploration, cosmology, concepts of relativity.

121. Introduction to the Study of the Moon
For course description, see Interdisciplinary Courses.

217. General Astronomy
Fall. Winter. 4(4-0) MTH 103.
Descriptive course intended primarily for physical science majors. A semi-quantitative discussion of time, telescopes, the solar system, stars, clusters of stars, galaxies, and cosmology. Limited opportunity for astronomical observations.

229. General Astronomy
Spring. 4(4-0) PHY 387 or 291 or concurrently. Students may not receive credit in more than one of the following: 119, 217, 229.
Fundamental observations in astronomy and their interpretation through physical laws. Intended for physical science majors and recommended for astrophysics majors. Quantitative discussion of orbital motion, time, telescopes, solar system, stars, galaxies, and cosmology. Limited opportunity for astronomical observations.

327. Practical Astronomy
Spring. 3(3-0) 217, MTH 113.

*Name changed effective March 1, 1974. Formerly Astronomy.