

**Descriptions — Art
of
Courses**

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 printmaking 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—Multi-Media**

Fall, Winter, Spring, Summer. 4(1-9)
May re-enroll for a maximum of 8 credits.
Approval of department.

Investigation of multi-media 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.

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. 1(0-2) 119, or 217, or 229 or concurrently.

Observations of celestial objects, constellation identification, and occasional planetarium exercises.

119. General Astronomy

Fall, Winter, Spring, Summer. 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, Spring. 4(4-0) 119.

Detailed qualitative discussion of currently interesting topics in astronomy. Quasars, pulsars, black holes, planetary exploration, cosmology, concepts of relativity.

**IDC. Introduction to Study of the
Moon**

For course description, see Interdisciplinary Courses.

217. General Astronomy

Fall, Winter. 4(4-0) MTH 102.

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 287 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.

Celestial coordinate systems. Time conversion and sidereal time. Atmospheric refraction, parallax, proper motion, aberration, and precession. Star catalogs and ephemerides. Finding charts and setting of equatorial telescopes.

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

ARTS AND LETTERS A L

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, idea, 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.