805. History of Anthropological Theory
Fall, 5(5-0) ANP 902, ANP 904 or approval of department.
A review of the various schools of thought, important personalities, and principal concepts that have contributed to the development of anthropological theory.

825. Seminar in Cross-Cultural Relations
Winter of odd-numbered years. 4(4-0) Approval of department. Interdepartmental with the Department of Sociology. Analysis of the relations between superordinate and subordinate societies and between coordinate societies and cross-cultural exchange programs.

827. Anthropological Theorists
Winter. 4(4-0) May reenroll for credit with approval of department. Approval of department.
Review of current theoretical problems in social and cultural anthropology.

830. Kinship Studies
Winter of odd-numbered years. 4(4-0) Approval of department.
The course will raise the question of what kinship is and why it has been such a central topic in anthropology. Various controversies and theoretical trends will be presented and analyzed.

831. Linguistic Anthropology
Winter. 5(3-2) Approval of department.
The nature of language, techniques for the description and comparison of languages, linguistics as an anthropological tool, language and culture.

833. Anthropological Topics in Prehistory
Spring. 4(4-0) May reenroll for a maximum of 12 credits when other problems are offered. Approval of department. Relation of archaeology to the other fields of anthropology on both a theoretical and practical level. Archaeological data are used to introduce problems of long-range cultural change and development.

835. Human Osteology and Osteometry
Spring of even-numbered years. S(3-4) Approval of department. Identification of human bones and fragments; aging, sexing and determining the race of skeletal remains; measuring techniques for cranial and postcranial remains; the more common forms of paleopathology.

IDC. Interdisciplinary Seminar on Africa
For course description, see Interdisciplinary Courses.

850. Archaeological Methods and Techniques
Winter. 4(4-0) Approval of department.
Seminars outlining archaeological method and the role of technique in the strategy of archaeology. Techniques and problems of information retrieval will be emphasized.

856. Methodology of Anthropological Research
Winter. 1 to 12 credits. Approval of department.
Seminars in problems of anthropological investigation considered in the framework of history and philosophy of science. Relevance of various field techniques, methods of data gathering and data handling, and strategies of analysis for various problems are treated.

857. Applied Anthropology
Spring of odd-numbered years. 4(4-0) Approval of department.
Theoretical and methodological problems involved in planned social change. Course will focus on field experience in the local community. Designed mainly for graduate students having professional interest in the application of social change.

865. Environment, Technology, and Culture
Winter of even-numbered years. 4(4-0) Approval of department.
Cultural ecology, study of the relation of man and his physical environment, the role of technology in mediating between the two. Comparative analysis of the interdependence of social organization, technology and environment. Case histories of cultural and social change arising from technological innovations.

870. Individual Research Projects
Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 24 credits when new fields are offered. Approval of department. Special fields of study will include any area of anthropology selected.

875. Individual Readings
Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 24 credits with approval of department. Approval of department.

880. Master's Thesis Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

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

ART

College of Arts and Letters
History of Art

205. Introduction to Art
Fall, Winter, Spring. 3(3-0) Not open to majors.
Painting, sculpture and architecture from the time of the Greeks to the present. Individual works of art examined intensively, as regards both their formal qualities and the manner in which they exemplify the shifting patterns of Western culture.

206. History of Western Art
Fall. 4(4-0)
Painting, sculpture, architecture and decorative art from prehistoric to modern times. Provides acquaintance with the forms of art typical of each period and indicates the aesthetic qualities which give them artistic significance. Work in first term covers Prehistoric, Egyptian, Mesopotamian, Greek, Roman, Early Christian and Byzantine periods.

207. History of Western Art
Winter. 4(4-0)
Continuation of HA 206. Early Medieval, Romanesque, Gothic, Renaissance and Mannerist periods.

208. History of Western Art
Spring. 4(4-0)
Continuation of HA 207. Baroque, Rococo, Neoclassic and subsequent periods to contemporary art.

IDC. Introduction to Latin America II
For course description, see Interdisciplinary Courses.

4001. Honors Work
Fall, Winter, Spring, Summer. 1 to 6 credits. Approval of department.

404. Greek Art and Archaeology
Winter. 4(4-0) H A 206 or approval of department.
The history of painting, sculpture and architecture of ancient Greece from the Bronze Age through the Hellenistic period. The history of archaeological excavations of selected sites.

405. Roman Art and Archaeology
Spring. 4(4-0) H A 206 or approval of department.
The history of painting, sculpture and architecture of Ancient Rome from the Republic through the 4th century. The history of archaeological excavations of selected sites.

406. Ancient Painting
Spring of odd-numbered years. 4(4-0) H A 206 or approval of department.
Ancient Greek and Roman painting, including Minoan Crete. Special emphasis is placed on Archaic and Classical Greek painting on pottery and on Roman wall painting from Pompeii and elsewhere.

407. Ancient Sculpture
Fall of odd-numbered years. 4(4-0) H A 206 or approval of department.
The sculpture of Ancient Greece and Rome, from the Bronze Age through Early Christian times.

408. Ancient Architecture
Winter of even-numbered years. 4(4-0) H A 206 or approval of department.
The architecture of Ancient Greece and Rome, from Mycenaean times to the 6th century A.D., with special emphasis on the religious architecture of Classical Greece and Imperial Rome.

410. Early Christian and Byzantine Art
Fall. 4(4-0) H A 206 or approval of department.
Development of Christian art and architecture from the third through eighth centuries in the west, and through the Macedonian Renaissance in the east.
411. Carolingian, Ottonian, and Romanesque Art
Winter. 4(4-0) H A 207 or approval of department.
The history of architecture, painting, and sculpture in the west from the time of Charlemagne through the Ottonian Empire and the great Romanesque churches of the 11th and 12th centuries.

412. Gothic Art
Spring. 4(4-0) H A 207 or approval of department.
Development of the great French cathedrals of the 12th and 13th centuries; Caravaggio, the Northern Renaissance, Titian, Tintoretto, and other important masters of even-numbered years.

420. Italian Renaissance Architecture
Spring. 4(4-0) H A 207 or approval of department.
Important buildings of the 15th and 16th centuries, architectural theories, and architectural representations in drawings and paintings.

421. Italian Renaissance Sculpture
Winter. 4(4-0) H A 207 or approval of department.
Major artists from circa 1250 to 1600.

422. Italian Renaissance Painting—Fifteenth Century
Fall. 4(4-0) H A 207 or approval of department.
Developments in Italian painting, especially Florentine, of the 14th and 15th centuries, with emphasis on 15th century masters such as Masaccio, Piero della Francesca and Botticelli.

423. Italian Renaissance Painting—Sixteenth Century
Spring. 4(4-0) H A 207.
Emphasis on Leonardo, Michelangelo, Raphael, Titian, Tintoretto, and other important masters of the High and Late Renaissance.

427. Northern Renaissance Painting
Fall. 4(4-0) H A 207 or approval of department.
Fifteenth and early 16th century painting of the Netherlands, Germany, and France with emphasis on the works of Robert Campin, Jan Van Eyck, Rogier van der Weyden, Hieronymous Bosch and Albrecht Durer.

430. Seventeenth and Eighteenth Century Art in Italy
Fall of odd-numbered years. 4(4-0) H A 206 or approval of department.
Art and architecture of Italy in the 17th and 18th centuries; Caravaggio, the Carracci, Bernini, Borromini, Guarini, Jovara, Piazzetta, Tiepolo, Piranesi, Guardi.

431. Bruegel and Rubens—Sixteenth and Seventeenth Century Flemish Art
Fall. 4(4-0) H A 208 or approval of department.
The paintings of Pieter Bruegel the Elder, Peter Paul Rubens, their major followers, Jan Brueghel, Anthony van Dyke and Jacob Jordaens; and others.

433. Seventeenth Century Dutch Art
Winter of odd-numbered years. Spring of even-numbered years. 4(4-0) H A 206 or approval of department.
Art and architecture of the Northern Netherlands during the Golden Age; paintings of Rembrandt, Vermeer, Hals and genre, still-life and landscape specialists.

434. French Art in the Ancien Régime
Spring of odd-numbered years. 4(4-0) H A 208 or approval of department.
French art and architecture from the reign of Louis XII to the Revolution: Royal patronage at Fontainebleau, Versailles and Paris; the influence of Italy, Flanders and Holland on French artists.

435. Eighteenth Century Art in England and France
Fall of even-numbered years. 4(4-0) H A 208 and approval of department.
Art and architecture of France and England during the 18th century: the painting of Watteau, Chardin, Hogarth, Gainsborough and others; the Rococo style in France and stylistic eclecticism in England.

440. Modern Architecture
Winter. 4(4-0) H A 205 or approval of department.
Technological, stylistic, and intellectual developments in European and American architectural design since 1850: Eclecticism, the Chicago School, the emergence and influence of the International Style, the New Brutalism, and Space frames.

442. Modern Sculpture
Fall, Spring. 4(4-0) H A 208 or approval of department.
European and American sculpture from the late 19th to the present: Rodin and his contemporaries, Expressionism, Cubism, and Pop; Constructivism, Surrealism and their influence; Assemblage, Minimalism, and Process Art.

445. European Painting: 1760-1848
Fall, Summer. 4(4-0) H A 208 or approval of department.
The revival and development of Classicism in the late 18th and early 19th centuries and the flowering of Romanticism; a study of the rich complexities of painting in Europe.

446. European Painting: 1848-1907
Winter. 4(4-0) H A 208 or approval of department.
Realism in conflict with the established traditions; growth and development of Impressionism, Post Impressionism, Symbolism, and Pre-Raphaelitism.

447. 1906: The Arts of Europe at the Turn of the Century
Winter. 4(4-0) H A 208.
European painting, sculpture, architecture and the applied arts at the turn of the century; symbolism, historicism and art nouveau and their contribution to the development of fauvism, expressionism and cubism.

450. Twentieth Century Painting
Fall, Spring. 4(4-0) H A 208 or approval of department.

451. Post 1945 Art
Winter. 4(4-0) H A 208, H A 440, H A 442, or H A 450 recommended.
Intensive study of American and European art from 1945 to the present with special emphasis on painting and sculpture: the New York School to conceptualism.

458. Contemporary Art Critics
Spring. 4(4-0) H A 208.

460. Seventeenth and Eighteenth Century American Art
Fall. 3(3-0)
Architecture, painting, and sculpture from colonial times to 1800: The Colonial, Georgian, and Federal styles as evidence of the emerging American pattern.

463. Nineteenth Century American Art
Fall of even-numbered years. 3(3-0)
The American tradition in painting in Cole, Durand, and the landscape painters; the genre and realist works of Mount, Homer, and Eakins; and in the European painterly mode of Sargent and Whistler.

464. Nineteenth Century American Architecture and Sculpture
Winter of odd-numbered years. 3(3-0)
The evolution of American architecture from the Neo-classical revivals to the early works of Frank Lloyd Wright; the impact of the Chicago School; changing sculptural patterns from Powers to Saint-Gaudens.

465. Twentieth Century American Art
Spring. 3(3-0)
Architecture, painting, and sculpture from 1900 to the present; the Ash Can School, the Armory Show, Regionalism, Abstract Expressionism, and post-Abstract Expressionism as expressive of the changing American pattern.

471. Art of China
Fall of even-numbered years. 3(3-0)
The evolution of Chinese art from early Neolithic times to the present; the landscape paintings of the Sung and Yuan; 20th century Chinese art against the background of traditional Chinese art.

473. Art of Japan: Pre-Buddhist to the Momoyama Period
Winter. 3(3-0)
Architecture, sculpture, and painting from the Jomon and Yayoi periods to the Renaissance of Chinese traditions in the Momoyama period; the interaction of Chinese and Japanese traditions.

474. Art of Japan: Momoyama to the Present
Spring. 3(3-0)
Architecture, sculpture, painting, and prints of the Momoyama and Tokugawa periods; the interaction of Japanese and Western art in Nanban art, Meiji, and post-Meiji art.

475. Art of India
Fall of odd-numbered years. 3(3-0)
The evolution of Indian art from the Indus Valley culture to the present; Buddhism and Hinduism as major forces in the formation of the Indian tradition.
Descriptions – Art

Courses

480. Historic Preservation
Winter. 3(3-0) Seniors, approval of department. Interdepartmental with Urban Planning.
History and philosophy of historic preservation, the new attitude towards preservation–historic districts and neighborhoods–adaptive use, documentation and tools for preservation; a project based on field research.

481. Historic Preservation Planning
Spring. 3(3-0) Juniors. Interdepartmental with and administered by Urban Planning.
Overview and analysis of the role of historic preservation in the urban planning process. Focus upon current and emerging techniques, programs, and approaches needed to create effective preservation efforts.

483. Historical Painting Techniques
Spring of even-numbered years. 3(1-4)
H A 207, H A 208.
Various techniques of drawing and painting from the Middle Ages to the nineteenth century investigated through research and practice.

484. History of Prints
Winter. 4(4-0)
History and appreciation of engraving, etching, lithography and woodcuts. Durer, Rembrandt, Goya, Daumier and contemporary printmakers. Prints and book illustrations as source material.

485. Special Problems
Fall, Winter, Spring. Variable credit. May reenroll for a maximum of 10 credits. Approval of department.
Selected problems in history of art for individual study.

500. Seminar in Ancient Art
Fall, Winter, Spring. 4 credits.

510. Seminar in Medieval Art
Fall, Winter, Spring. 4 credits.

520. Seminar in Italian Renaissance Art
Fall, Winter, Spring. 4 credits.

530. Seminar in Seventeenth and Eighteenth Century European Art
Fall, Winter, Spring. 4 credits.

540. Seminar in Nineteenth-Century Art
Fall, Winter, Spring. 4 credits.
An intensive investigation of a topic in the history of 19th century painting, sculpture or architecture.

550. Seminar in Twentieth-Century Art
Spring. 4(4-0) At least one course in twentieth century art history or approval of instructor.
An intensive investigation of a topic in the history of 19th century painting, sculpture or architecture.

575. Methods and Approaches in Art History
Fall. 4(4-0) Reading knowledge of French or German recommended.
Reference books, history of scholarship, and particular techniques and challenges in the various specialties of art history and archaeology.

885. Problems in History of Art
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 15 credits. Approval of department.
Selected graduate problems in history of art for individual study.

899. Master’s Thesis Research
Fall, Winter, Spring. Variable credit. May reenroll for a maximum of 12 credits. Approval of department.

Studio Art

101. How to Look at Art (A)
Fall, Winter, Spring. 3(3-2)
Ways of looking at art of any period, but particularly modern art. Slide lectures, reading and studio exercises showing how artists relate their work to socio-intellectual developments of their time.

140. Studio Art Introduction
Fall, Winter, Spring. 3(0-5) Not open to majors.
Concepts in the studio arts studied through a broad range of media. The use of line, value, rhythm and other basic elements explored in drawing, color and 2- and 3-dimensional design.

141. Drawing
Fall, Winter, Spring. 4(0-8)
Drawing in a variety of forms as an essential discipline, a means of expression, a preparation for and adjunct to the other arts.

142. Color
Fall, Winter, Spring. 4(0-8)
Color theories additive and subtractive; pigment and light as applied to the problems of the artist.

143. Three-Dimensional Form
Fall, Winter, Spring. 4(0-8)
Experimentations with volume through manipulation of mass, plane and line in a wide range of materials and techniques.

200. Photography
Fall, Winter, Spring. 3(2-2)
History of photography and basic technology of photography combined with darkroom experience in black and white processing. Equipment and fundamental problems are investigated. Students are required to furnish cameras and all materials.

201. Art for Elementary Teachers
Fall, Winter, Spring. 4(1-8) ED 200; approval of department. Not open to Freshmen or Art majors.
Understanding the creative art experiences of children. Studio work in materials suitable for grade school use. Reading and discussions relating the child's growth and development and his art experience.

228. Sculpture
Fall, Winter, Spring. 4(1-8) STA 143.
Preparation for sculpture, involving experience with three dimensional forms. Exploration of the characteristics of sculpture past and present.

231. Graphic Design
Fall, Winter, Spring. 4(0-10)
Letterforms leading to the understanding of written and printed letters; the traditional methods by which they are produced and their relation to modern typography.

239. Design Communications
(339.) Winter, Spring. 4(0-8) STA 241, EGR 161.
Communication of design concepts through visual means. The use of various methods, materials and techniques in current professional usage to express the conceptual, developmental and final stages of the design process.

240. Ceramics
Fall, Winter, Spring, Summer. 4(0-10) STA 143.
An exploration of form mainly from the standpoint of the enclosed volume. The complete process from the preparation of clay bodies to the glazed and fired piece. Limited to earthenware.

241. Life Drawing
Fall, Winter, Spring. 4(1-8) May reenroll for a maximum of 8 credits. STA 141.
Tools and materials of the artist applied in a variety of ways to the act of representing the human figure.

245. Design
Fall. 4(1-8) STA 141.
Use of basic design elements in two and three dimensions. Study of the appropriateness of forms to various media. Introduction to applied design procedures and processes.

247. Printmaking
Fall, Winter, Spring. 4(1-8) STA 141, STA 142.
Study of the art of printmaking and its major techniques. Studio practice in a wide range of printing methods.

249. Metalamithing
Fall, Winter, Spring. 4(1-8) STA 141, STA 142, STA 143.
Basic processes of forming, joining, finishing, and embellishing metals to make small objects or jewelry.

255. Painting
Fall, Winter, Spring. 4(1-8) STA 141, STA 142.
Pictorial expression. Class discussion and studio work in a variety of media.

300. Still Photography I
Winter, Spring. 5(0-10) STA 200, approval of department.
Control of the photographic medium and production of fine prints with investigations into light as form-giver, modifier and reducer; study of specific subjects as design and as information.

301. Applied Photography
Fall. 3(1-4)
Photography in the reproduction of such two-dimensional materials as art work and charts; three-dimensional art, products and architecture; methods of presentation with emphasis on slide and book forms.

302. Art in Special Education
Fall, Winter, Spring. 4(1-9) ED 200.
Art and the teacher as related to special education. Experience with materials and techniques as well as critical examination of the creative/expressive processes for handicapped children.

303. Resources and Materials for Art Education I
Fall, Winter, Spring. 4(1-9) ED 200; 24 credits in studio art.
Concepts, processes and materials as they apply to art teaching situations.
345B. Product Design II
Winter, 3(0-6) STA 345A
Product design based on general user behavior and average anthropometric measurements. Solutions will be based on basic manufacturing processes using stock components. Sketches, mock-ups, and models.

345C. Product Design III
Spring, 3(0-6) STA 345B
Product design based on product function, anthropometric analysis and the psychological aspects of user behavior. Solutions based on mass production techniques and materials. Reports, sketches, mock-ups and models.

408. Advanced Relief Prints
Fall, Winter, Spring, Summer, 1 to 6 credits. May reenroll for a maximum of 18 credits. STA 306 or approval of department.
Continuation of STA 308 for students interested in a deeper exploitation of the various block printing media.

410. Film Workshop
Fall, Winter, Spring, Summer, 5 to 10 credits. May reenroll for a maximum of 30 credits. STA 311, approval of department.
Film workshop with emphasis on independent study. Live film assignments.

421. Art for Classroom Teachers
Summer, 3(1-3) Certified classroom teachers.
Reading and discussion relating the child's art experience to its growth and development. Outside assignments required.

422. Art for Classroom Teachers
Summer, 3(1-3) STA 201 or STA 421.
Continuation of STA 421.

423. Art in Special Education
Summer, 3(0-2) Junior and Senior Special Education majors and approval of department.
Art and the art teacher in relation to the exceptional child. Development of an understanding of the creative processes of handicapped children.

424A. Advanced Graphic Design
Fall, 5 to 10 credits. May reenroll for credit. Seniors, STA 324, approval of department.

424B. Advanced Graphic Design
Winter, 5 to 10 credits. STA 424.
Advanced problem solving involving existing media of graphic expression. Study of graphic equivalents of literal images and ideas in the creation of posters, trademarks and magazine and book covers.

424C. Advanced Graphic Design
Spring, 5(0-10) to 10(0-20) STA 424B.
Senior thesis based on design research required as a special project. Will use all studio facilities: campus resources.

428. Advanced Sculpture
Fall, Winter, Spring, Summer, 5 to 10 credits. May reenroll for a maximum of 35 credits. STA 328.
Continuation of STA 325. Problems in carving, modeling, casting in wax, clay, plaster, direct metal, etc.

430. Advanced Drawing
Fall, Winter, Spring, Summer, 1 to 5 credits. May reenroll for a maximum of 30 credits. STA 340.
Experimental approaches to drawing employing the widest range of materials, techniques and concepts. Functions of drawing going beyond descriptive analysis will be viewed in the context of visual, nonvisual and conceptual phenomena.

431. Advanced Ceramics
Fall, Winter, Spring, Summer, 5 to 10 credits. May reenroll for a maximum of 35 credits. STA 341.
Continuation of STA 341 with increased opportunity for supervised individual study.
433. Advanced Composition and Painting  
Summer. 3 to 6 credits. May reenroll for credit. STA 355, STA 355 or approval of department. Continuation of STA 353 or STA 355 with increased opportunity for supervised independent development.

435. Advanced Painting  
Fall, Winter, Spring, Summer. 1 to 5 credits. May reenroll for a maximum of 30 credits. STA 349, STA 355. Continuation of STA 355 with increased opportunity for supervised independent development.

440. Special Problems  
Fall, Winter, Spring, Summer. 2 to 5 credits. May reenroll for a maximum of 5 credits. Approval of department. Advanced work developed from special interest areas.

445A. Advanced Product Design I  
Fall. 3(0-6) STA 345C. Product design research, analysis and development using systematic design methods. Advanced problems requiring sophisticated product solutions. Reports, sketches, mock-ups and models.

445B. Advanced Product Design II  
Winter. 3(0-6) STA 445B. Concepts of product systems research, planning and analysis. Students will identify, develop and research individual thesis project involving systems concepts. Reports and sketches.

445C. Advanced Product Design III  
Spring. 5(1-8) STA 445B. Product design thesis. Design and development of a product system using data developed in STA 444B. Design solution will be presented in the form of a one-person exhibition.

446. Product Design Workshop  
Fall, Winter, Spring, 2(0-4) May reenroll for a maximum of 12 credits if different topic is taken. STA 231, STA 230, STA 245. A Product Design or an Advanced Product Design course concurrently. Intense investigation of one product or product type such as furniture design, toy design, and package design. Workshop subject will change every term and will be announced prior to early registration. Students will investigate design principles, user behavior, materials, processes and trends of the workshop subject.

449. Advanced Metalmithing  
Fall, Winter, Spring. 2 to 6 credits. May reenroll for a maximum of 35 credits. STA 240, STA 349 or approval of department. Hollow form emphasized. Smithing including raising, forging, and Masonite die. Additional specialized techniques such as resins, enamels, electro forming, and tool making. Individual development emphasized.

450W. Art Workshop  
Summer. 1 to 6 credits. May reenroll for a maximum of 15 credits. Approval of department. Specific sessions of short duration (one to three weeks) permitting a concentrated experience in one area of interest within the general studio spectrum.

800. Studio Problems  
Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 24 credit. Studio problems in drawing, painting, printmaking, graphic design, industrial design, interior design, advertising design, sculpture-carving, sculpture-direct metal, ceramics.

801. Painting  
Fall, Winter, Spring, Summer. 3 to 12 credits. Advanced work in a variety of painting media with strong emphasis on independent development.

802. Drawing  
Fall, Winter, Spring, Summer. 3 to 12 credits. Advanced work in drawing employing a variety of media and calculated to contribute to development in related areas of art practice.

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.
Astronomy and Astrophysics – Descriptions of Courses

899. Master's Thesis Research
Fall, Winter, Spring. Variable credit. May reenroll for a maximum of 12 credits. Approval of department.

390H. Perspectives in Philosophy
Fall. 4(3-0) Juniors, approval of 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 the Social Sciences and Humanities
Fall, Winter, Spring. 2 to 6 credits. May reenroll for a maximum of 12 credits if different topic is taken. Juniors, approval of Honors College, or approval of instructor. Interdepartmental with the College of Social Science and Justin Merrill College.
An integration of subject matter and methodologies of several disciplines as they are relevant to particular topic areas.

392H. Perspectives in 20th Century Art: Postwar Period
Spring. 3(2-0) Juniors, approval of Honors College.
A continuation of General Astronomy with particular emphasis on modern developments. May include such topics as planetary exploration, interstellar matter, star formation, stellar evolution through final stages, supernovae, pulsars, neutron stars, black holes, galaxies, and cosmology.

393H. Perspectives in 20th Century Arts: 1900-1920
Fall. 3(3-0) Juniors, approval of Honors College.
A qualitative presentation of man's current view of the universe including birth and death of stars, cosmology, comparisons of planets, and life in the universe.

999. Doctoral Dissertation Research
Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 36 credits. Approval of college.

ASTRONOMY AND ASTROPHYSICS

109. Astronomical Fiction
Winter. 1(1-0) AST 119 concurrently. Concurrent readings of works of science fiction to assist the visualization of the concepts presented in AST 119.

115. Exploring Cosmology
Spring. 2(2-0) Not open to engineering or physical science majors. Nonmathematical view of the origin, history, and overall structure of the universe, based on the Big Bang model of cosmology.

117. Introductory Observing
Fall, Spring. 2(1-2) AST 119, or AST 217, or AST 229 or concurrently and approval of department. Observations of celestial objects, constellation identification, and occasional planetarium exercises.

119. General Astronomy (N)
Fall, Winter, Spring, Summer. 4(4-0) Not open to engineering or physical science majors. Students may not receive credit in more than one of the following: AST 119, AST 217, AST 229.
A qualitative presentation of man's current view of the universe including birth and death of stars, cosmology, comparisons of planets, and life in the universe.

120. Topics in Astronomy
Winter, Spring. 4(4-0) AST 119. Detailed qualitative discussion of currently interesting topics in astronomy. May include such topics as quasars, pulsars, black holes, planetary exploration, cosmology, concepts of relativity.

217. General Astronomy (N)
Fall, Winter. 4(4-0) MTH 102 or MTH 109 and MTH 111. Students may not receive credit in more than one of the following: AST 119, AST 217, AST 229.
Intended primarily for physical science majors. A qualitative presentation of man's current view of the universe including birth and death of stars, cosmology, comparisons of planets, and life in the universe.