Sections of courses are listed in alphabetical order, by the prefix of the academic discipline. Credit notations on the far right are in the pattern 3-0-3. The first number is the number of lecture hours (or equivalent) each week; the second number is the number of laboratory hours (or equivalent) each week; the third number is the number of semester hours credit. The suffix H designates Honors Courses; the suffix K designates courses in which a laboratory is included; the suffix L designates a lab course that is separate.

**ACCT: ACCOUNTING**

**ACCT 2101 Principles of Accounting I**

An introduction to financial accounting that emphasizes accounting’s role in business and society. The course develops an understanding of the financial statements of economic entities.

**ACCT 2102 Principles of Accounting II**

**Prerequisite: ACCT 2101 with a grade of C or better.** An introduction to managerial accounting. Emphasis is placed on understanding internal accounting documents and analyzing these documents to render logical and economically feasible decisions.

**ACCT 3201 Intermediate Accounting I**

**Prerequisite: ACCT 2102.** An examination of the authoritative standards, theoretical foundations, and practical concerns that underlie generally accepted accounting principles for financial accounting and reporting.

**ACCT 3202 Intermediate Accounting II**

**Prerequisite: ACCT 3201.** A continuation of the topics begun in ACC 3201.

**ACCT 3240 Managerial Accounting**

**Prerequisite: ACCT 2102.** A continuation of the concepts, practices, and utilization of internal accounting information for management decision making. The course looks particularly at relevant costs, segmental analysis, budgeting, activity based costing and cost behavior analysis.

**ACCT 3400 Cost Accounting**

**Prerequisite: ACCT 2102.** A study of product cost determination. Inventory valuation, planning, control, and financial reporting are emphasized in this course.

**ACCT 3900 Not-For-Profit Accounting**

**Prerequisite: ACCT 2102.** A study of fund theory and practice. Accounting for governmental entities, educational organizations and other not-for-profit entities are examined.
ACCT 4220  Advanced Accounting  3-0-3
Prerequisite: ACCT 3202. Concepts and techniques necessary for the preparation of consolidated financial statements and accounting for partnerships. The course is primarily designed as an intensive study of working papers necessary to integrate the financial information of multiple legal entities into a single set of statements reflecting the single economic entity.

ACCT 4410  Accounting Information Systems  3-0-3
Prerequisite: ACCT 3201 and ACCT 3400. An introduction to the use of accounting information systems within an organization. The control and communication of files and databases are studied. Applications requiring the use of spreadsheets, relational databases and general ledger software applications are used in this course.

ACCT 4500  Individual Income Tax  3-0-3
Prerequisite: ACCT 2102. Introduction to federal income taxes including the elements of income, income exclusions, tax credits, capital gains and losses. Emphasis is placed on understanding the executive, legislative and judicial aspects of the tax law. Research is required.

ACCT 4800  Introduction to Operational Auditing  3-0-3
Prerequisite: ACCT 3202 and ACCT 3400. Introduction to operational auditing from a management perspective. Emphasis is placed on auditing for efficiency and effectiveness, including measuring and managing risk and performance, evaluating business activities and processes, and fraud investigation.

ACCT 4850  Accounting Internship  3-0-3
Prerequisite: Faculty approval. The application of academic accounting skills and values in an employment situation. A research project, approved by a faculty member and the employer, is required.

ACCT 4990  Directed Study in Accounting  3-0-3
Prerequisite: Faculty approval. A special project undertaken by the student. The project is guided by a faculty member and culminates in a research report.

AFAM: AFRICAN AMERICAN STUDIES

AFAM 2020  Race, Class, and Gender  3-0-3
Also offered as WMST 2020. An exploration of social class, gender and racial/ethnic relations as distinct, but linked dimensions of social inequality. Includes an examination of the historic underpinnings of discrimination by race, class and gender and the present status of these issues.

AFAM 3000  Introduction to African American Studies  3-0-3
An introduction to key concepts, thematic concerns, and the theoretical and philosophical bases for African American Studies. To include perspectives and strategies for the analysis and understanding of the impact of African Americans on the socio-economic, cultural, political, and religious developments of America.
AFAM 3220  Studies in African American Literature  3-0-3
Also offered as ENGL 3220. Prerequisite: ENGL 2110, 2120, 2130, or 2140.
A study of selected topics in African American literature. May be repeated, but only 3 hours may be counted toward distribution requirements for the AFAM minor.

AFAM 3320  Studies in African Literature  3-0-3
Also offered as ENGL 3320. Prerequisite: ENGL 2110, 2120, 2130, or 2140.
A study of selected topics in African literature. May be repeated, but only 3 hours may be counted toward distribution requirements for the AFA minor.

AFAM 4231  African American History to 1865  3-0-3
Also offered as HIST 4231. The history of the African Americans from their origin in Africa to the end of slavery in the U.S., with emphasis on their economic life and social thought.

AFAM 4232  African American History Since 1865  3-0-3
Also offered as HIST 4232. The history of the African American struggle for equality after emancipation, with special focus on the problems of black leadership from Frederick Douglass to the Black Panthers.

AFAM 4511  Precolonial Africa  3-0-3
Also offered as HIST 4511. An analysis of the 8000-year-old cultures of the Nile Valley, including Egypt, Nubia, and Kush; West Africa and its contacts with the Middle East and Europe; the East African city-states and their contacts with India.

AFAM 4512  Modern Africa  3-0-3
Also offered as HIST 4512. Explores the European colonization of Africa and the African response. The course also examines the emergence of African nationalism and the problems of creating new states.

AFAM 4700  African American Studies Seminar  3-0-3
Prerequisite: AFAM 3000 and at least two AFAM 3000 level course electives. An interdisciplinary seminar on selected topics, providing a capstone experience.

ANTH: ANTHROPOLOGY

ANTH 1102  Introduction to Anthropology  3-0-3
An introduction to the origins, evolution, and present-day adaptations of the world’s peoples. Emphasis on the study of fossils, archaeological remains, and culturally diverse life ways.

ANTH 1102H  Introduction to Anthropology, Honors  3-0-3
Fundamentals of anthropology, with particular focus on such disciplinary subfields as physical anthropology, archaeology, and cultural anthropology. Emphasis is on the employment of the anthropological perspective, and the application of anthropological concepts and models to contemporary issues and problems.

ANTH 3010 Physical Anthropology  3-0-3
Prerequisites: ANTH 1102 or permission of instructor. The study of the biological origins of the human species. An emphasis is placed on human evolution, genetics, primatology, and the interaction between culture and biology.
ANTH 3020  Culture and Personality 3-0-3
Prerequisites: ANTH 1102 or permission of instructor. A cross-cultural survey of the relationship between culture and personality. Attention is directed to the interplay of cultural and social variables in the development of identity. Specific foci include mental illness, aggression, altered states of consciousness, and individual adaptation to social change.

ANTH 3030  Archaeological Techniques 2-2-3
Prerequisite: ANTH 1102 or permission of instructor. An introduction to the theory and techniques of archaeology as well as their practical application. Students will participate in fieldwork, including archaeological survey, excavation, and laboratory analysis.

ANTH 3040  Cultural Anthropology 3-0-3
Prerequisite: ANTH 1102 or permission of instructor. An introduction to the nature of cultural anthropology through a cross-cultural analysis of cultural systems and social organizations. Specific theoretical approaches are applied to case materials from cultural systems around the world including those within our society.

ANTH 3070  Magic, Religion, and Witchcraft 3-0-3
Prerequisite: ANTH 1102 or permission of instructor. A cross-cultural survey of varieties of religious expression. Emphasis is placed on ritual, mythic, and symbolic dimensions of religion and the way religion interrelates with other social institutions.

ANTH 3120  Archaeology of Eastern North America 3-0-3
Prerequisites: ANTH 1102 or permission of instructor. A study of cultural development in eastern North America, employing archaeological, ethnohistorical, and historical perspectives. The temporal boundaries are the arrival of humans in the region until the nineteenth century. Native American and Euroamerican culture history will be explored.

ANTH 3130  Indians of North America 3-0-3
Prerequisites: ANTH 1102 or permission of instructor. A survey of the lifestyles of North American Indians following contact with Europeans. Groups from all regions of North America are included, and the course examines native lifestyles at particular points in time. Primary emphasis is on environmental adaptation and economy of each group; in addition, social and political organization, religion, material culture, arts, and other aspects of culture are discussed.

ANTH 3160  Experimental Archaeology 1-4-3
Prerequisite: ANTH 1102 or permission of the instructor. An introduction to primitive technology with an emphasis on recreating past tools and utensils in an attempt to understand past lifeways. Lab fee required.

ANTH 3500  Anthropological Theory 3-0-3
Prerequisites: SOCI 3000. An historical survey of the development of anthropological theory, with a primary focus on the anthropological perspective and including an introduction to general social science. Students will develop a competent review of literature in an area of anthropology.
ANTH 3510 Anthropological Research 3-0-3
Prerequisites: SOCI 3000. An introduction to the concepts and methods of anthropological research. The emphasis is on developing familiarity with the various research strategies employed by cultural anthropologists and their application. Course work culminates with the design of a research proposal.

ANTH 3910 Anthropology of Law 3-0-3
Prerequisite: ANTH 1102 or permission of instructor. The study of legal systems and conflict resolution styles in nonWestern societies. The varieties of legal understandings and procedures are explored, and characteristics of specific legal processes are related to other institutional spheres, such as economics, kinship, and religion.

ANTH 4040 Sociocultural Change 3-0-3
Prerequisite: ANTH 1102 or permission of instructor. An examination of sociocultural changes occurring in tribal and peasant societies in response to modernization. Particular attention is focused on the articulation of these societies with the larger national and global systems, the resulting inequalities, types of social and cultural disruptions experienced, and the range of responses to change.

ANTH 4540 Internship in Anthropology 1-0-1 to 3-0-3
Prerequisites: Permission of advisor and Internship Coordinator. Must be taken concurrently with SOCI 4990 Senior Capstone. Supervised, practical experience in an appropriate community agency; an opportunity for students of demonstrated maturity and judgment to discover the integration between theory and practice and make applications. Graded on satisfactory/unsatisfactory basis.

ANTH 4900 Special Topics in Anthropology 1-0-1 to 3-0-3
Prerequisites: ANTH 1102 or permission of instructor. Topics vary. Designed to provide an intensive study in a current topic relevant to anthropology. May be repeated for credit.

ANTH 4980 Directed Study in Anthropology 1-0-1 to 3-0-3
Prerequisites: ANTH 1102 or permission of instructor. Study in an area or subject not normally found in established courses offered by the department; may also allow the student to explore in more detail a topic which is normally covered by the department. May be repeated for credit.

ART 1100 Introduction To The Visual Arts 3-0-3
An introductory survey of world art from prehistory to the contemporary period. Credit for this course may not be used to satisfy requirements for area F or senior curriculum requirements for ART or ARED majors.

ART 1100H Honors Introduction To The Visual Arts 3-0-3
An introductory survey of world art, at the Honors level, from prehistoric to the contemporary period, set in the context of historical, political, economic, and social events.
ARED: ART EDUCATION

ARED 2010 Introduction to Crafts
Prerequisite: ART 2012L - Basic Design II or permission of the Department Head. An introduction to basic crafts techniques and media including glass, enamel, paper, fiber, and textile.

ARED 2020 Art Education For Early Childhood
And Middle School Teachers
Prerequisites: CIED 2000 and PSYC 2700. The study of art education philosophies, goals, content, media, materials, and methods appropriate for all children, P-8th grade. Emphasis placed on Discipline-Based Art Education theory and activities. May not be used to satisfy requirements for the Art Education degree. Purchase of art materials is required.

ARED 3010 Methods, Management, and Materials for Art Education (P-12)
Prerequisite: ARED major and junior standing. Emphasis placed on the development of materials for instruction and preparation of professional materials including a resume. Senior exhibition experience is required. This course must be taken the same semester as ARED 4090 - Student Teaching. This is a studio course.

ARED 3030 Creative Problem Solving and Visual Thinking Techniques
The study of creative behaviors. Theories of creativity, creative problems solving, blocks to creative behavior, and the relationship between creativity, cognition, and visual thinking are topics. Emphasis on strategies to enable creative behaviors. This is laboratory class and meets 6 hours per week.

ARED 3040 Art Criticism and Aesthetic Inquiry
Prerequisite: Art Education major or permission of the department head. The study of the theories and practices of art criticism and aesthetic inquiry associated with art and art education.

ARED 3050 Curricular and Assessment Models for Art Education (P-12)
Prerequisite: PSYC 3100. The study of curricular models and contemporary authentic assessment and evaluation approaches commonly associated with public school art education programs, P-12. Theoretical constructs and practical methods will be reviewed.

ARED 4070 Seminar in Art Education (P-12)
Prerequisite: PSYC 3100. Taken with ARED 4090 - Student Teaching. Emphasis on professional expectations, instructional and curricular issues and problems found in the school setting. Senior exhibition experience is required.

ARED 4080 Internship in Art Education
Prerequisite: ARED 3050, ARED 3010 or equivalent, and permission of the Department Head. Supervised art education teaching experience for individuals who have a degree, have passed PRAXIS II, and are under contract to a school system. Must be taken 3 consecutive semesters to earn 9 hours of credit. Graded “S” or “U”. Leads to certification.
ARED 4090  Student Teaching in Art Education 0-0-9
Prerequisite: Completion of the professional education sequence. The culmi-
nating professional experience scheduled during the final semester of University
enrollment. The student is provided with a supervised teaching experience in
any one of three settings, elementary school, middle school, or senior high school.
Graded “S” or “U”.

ARHS: ART HISTORY

ARHS 1120  Fundamental Concepts in the Visual Arts 3-0-3
Restricted to ART and ARE majors and art minor only. Survey of the major
artistic achievements of world art from prehistory to the present. Discussion of
the visual language of art and methods, techniques, approaches, and disciplines.

ARHS 3120  Special Topics in Art History 3-0-3
Prerequisite: ARHS 3122. The study of unique or special content in the visual
arts.

ARHS 3121  Survey of Art History I 3-0-3
Prerequisite: ART 1100. A survey of world art from prehistory through Medi-
eval.

ARHS 3122  Survey of Art History II 3-0-3
Prerequisite: ARHS 3121. A survey of world art beginning with the Proto-
Renaissance through the late 20th century.

ARHS 4120  Issues in Art Criticism 3-0-3
Prerequisite: ARHS 3121. Selected issues from the discipline of art criticism.

ARHS 4130  Women Artists 3-0-3
Prerequisite: ARHS 3122. The study of art forms created by women artists in
western as well as non western cultures.

ARHS 4140  African American Art History 3-0-3
Prerequisite: ARHS 3122. The study of the arts and crafts created by African
American artists from the late 18th century up to the contemporary period.

ARHS 4150  Contemporary Art History 3-0-3
Prerequisite: ARHS 3122. The study of contemporary art movements in the
20th century to the present day.

ART: Interior Design

ARID 2111 Interior Design Studio I 0-6-3
Perquisite: ART 2012, ART 2022, and ARHS 1120. Students are introduced
to the principles and elements of interior design, space planning and design
composition, furniture layouts and planning, the application of color, use of
materials, and basic drafting skills.

ARID 2112 Interior Design Studio II 0-6-3
Prerequisite: ARID 2111. This course deals with application of the principles
and elements of interior design with emphasis on spatial problem solving.
Research focuses on furniture and storage systems. Application of color,
materials, and finishes are studied and employed in various projects.

ARID 3111 Interior Design Studio III 0-6-3
Prerequisite: ARID 2112. Problem solving focuses specific building types and user groups in areas, which include corporate, retail, and institutional settings. Appropriate research methods and programming of client requirements are introduced as well as techniques of diagramming space to provide proper circulation and activity relationships. Design concepts, image, color and finishes, graphics, building codes, and barrier-free design compliance are emphasized. Evaluations by practicing interior designers and architects highlight student presentations.

ARID 3112 Interior Design Studio I 0-6-3
Prerequisite: ARID 3111. Exploration of user groups and challenges associated with multifunctional use of spaces. Research, design analysis, and problem solving techniques are used. Lighting, color finishes, materials and details, building code issues, and barrier-free applications are emphasized. Evaluations by practicing interior designers and architects highlight student presentations.

ARID 4111 Interior Design Studio V 0-6-3
Prerequisite: ARID 3112. Introduction of more complex building types and design studies. Work includes institutional spaces, such as health care/hospice care, government/correctional facilities, cultural centers, and religious facilities. Students develop in-depth research and design analysis methods and explore specific user-group requirements, which address cultural, behavioral, and quality-of-life issues. Application and knowledge of building codes and ADA compliance are further developed throughout design projects and assignments.

ARID 4112 Interior Design Studio VI 0-6-3
Prerequisite: ARID 4111. Exploration of the multi-dimensional aspects of the residence and principles of problem solving applied to urban, suburban, and communal living spaces. Design for supportive housing, geriatric/senior living communities, hotels, resorts high-end cooperative/condominium apartments, country and vacation homes, shelters, and halfway houses will be investigated. In-depth research methods will be used along with exchange and guest design collaborators and field trips. Application of codes and barrier-free environments in such spaces as the kitchen and bathroom will be studied.

ARID 2310 Interior Design Graphics & Presentation 0-4-2
Prerequisite: ART 2012 and ART 2022. The use of presentation techniques and graphic expression are the focus of the course techniques for rendering the elements of interior space in detail, including finishes, fabrics, window treatments, and accessories are taught. Students will learn visualization techniques and are introduced to the use of varied media in the representation of light,
ARID 3211 History of Interiors 2-0-2
Prerequisite: ARTH 1120. Traces the major period styles used in interior design and furniture in England, France, and the United States from mid-17th century to the late 19th century. The study of form and an analysis of the evolution of concepts and styles developed in earlier civilizations.

ARID 3212 History of Interiors II 2-0-2
Prerequisite: ARID 3211. Traces the evolution of interior design and beginning with modernism in Europe and the U.S. through present day.

ARID 3320 Interior Design Materials 0-4-2
Prerequisite: ARID 2310. Provides the student with an understanding of the construction process as it relates to the development of interior space.

ARID 3340 Furniture Design 0-6-3
Prerequisite: ARID 2112. This course includes development of basic concepts of furniture design and construction. Detailed research and design projects requiring knowledge of interior spaces use and furniture design and construction methods.

ARID 3350 Interior Design Lighting & Building Systems 0-6-3
Prerequisite: ARID 3330. Basic understanding of vision as effected by light, color, texture, and interior form. The basic principles of lighting design including criteria, calculations, planning, and layout and building systems.

ARID 3411 Interior Design Computers 0-6-3
Prerequisite: ART 2030. Introduction to computer aided drafting, software and hardware used for interior design.

ARID 3412 CADD for Interior Design 0-6-3
Prerequisite: ARID 3410. Introduction of computer aided design and drafting (CADD), with emphasis on two-dimensional drafting applications such as schematics, floor plans, furniture plans, reflected ceiling plans, and elevations. Auto CAD on Macintosh computers is used to teach students how to create, store, modify, and plot drawing information.

ARID 4010 Interior Design Internship 0-0-3
Prerequisite: Junior Standing in Interior Design and ARID 3112. Taken during summer between year 3 and year 4. Students work with qualified designers in the field. Placement worked out between area coordinator, student, and qualified design professional. Includes interviews and assessment reviews with the student, supervisor, and professional before, during, and after the internship experience. Credit for this course will be “S” or “U”.

ARID 4210 Interior Design Preservation 2-0-2
Prerequisite: ARTH 3122. Basic concepts, techniques, and methods for historic preservation of interiors and furniture are studied. Preservation and recycling projects in the U.S. and Europe are reviewed.
ARID 4510 Interior Design Portfolio 1-2-2
Prerequisite: ARID 4111. This course includes the development of portfolio and resume for professional practice. Interview techniques, common situations associated with professional interior design practice, contracts, procurement, and billing procedures, fees, ethical conduct, sates, public relations, office organization, estimating, and scheduling are discussed.

ARID 4610 Interior Design Professional Practice 2-0-2
Prerequisite: ARID 3112. Professional practices and standards associated with interior design, including client relationships and marketing. Business methods and client record keeping techniques are introduced. Sources for fabrics and furniture, sampling, specifying, and manufacturing processes are researched. Special floor and wall coverings, window treatments, and upholstery methods and techniques are reviewed.

ARID 4620K Interior Design Seminar 1-2-2
Prerequisite: ARID 4111. Research methodology, gathering, analyzing, and presentation of design data using visual models. Field-based research project carried out by the student alone or in collaboration with fellow students, instructor, and/or professional designer. Proposal produced must be of professional quality.

ART: ART STUDIO

ART 1011 Basic Design I 0-6-3
A two-dimensional foundation design course in which the formal elements of art, principles of design, and color theory are introduced.

ART 1021 Drawing I 0-6-3
An introductory drawing course in which the concepts of composition, figure/ground, line, value, contour, gesture, linear and aerial perspective are studied using a variety of drawing techniques and media.

ART 2012 Basic Design II 0-6-3
A three-dimensional foundation design course in which the formal elements of design are introduced along with the methods and safety procedures associated with the use of power equipment. All students must pass examination on power tool usage and safety before access to power tools and shop.
ART 2022  Drawing II 0-6-3  
**Prerequisite:** ART 1021  A continuation of Drawing I. Further development of drawing techniques and methods for a personal and experimental approach. Abstract imagery, non-representational, and representational imagery will be explored.

ART 2030  Computers In Art 0-6-3  
**Prerequisite:** ART 1011  An introductory course to develop basic skills in computer applications for the visual arts including: design, page layout, word processing, illustration, web access, web design, historical and critical methods, and information management.

ART 3023  Drawing III 0-6-3  
**Prerequisite:** ART 2022  Interpreting the human figure through the use of a variety of media and techniques.

ART 3041  Painting I 0-6-3  
**Prerequisite:** ART 2022 or permission of the Department Head.  An introduction to oil and acrylic painting techniques.

ART 3051  Printmaking I 0-6-3  
**Prerequisite:** ART 1011 and ARTH 1120.  An introduction to basic printmaking processes and techniques including historical background and significance.

ART 3061L  Ceramics I 0-6-3  
**Prerequisite:** ART 2012 or permission of the Department Head.  A beginning level course including coil and slab construction, wheel throwing techniques, glazing processes, and kiln firing methods.

ART 3071L  Photography I 0-6-3  
An introductory course with emphasis on the technical and aesthetic foundations of black and white photography including camera functions, darkroom processing procedures, and presentation of work. A 35mm camera with manual controls is required.

ART 3081L  Sculpture I 0-6-3  
**Prerequisite:** ART 2012 or permission of Department Head.  An introduction to additive, subtractive, replacement, and modeling sculpture techniques and methods. Attention will be given to three dimensional studies of human anatomy.

ART 3091L  Graphic Design I 0-6-3  
**Prerequisite:** ARTH 1120 and ART 2030L.  Introduction to aesthetic and technical problem solving. Emphasis is placed on contemporary commercial art production techniques.

ART 3092L  Graphic Design II 0-6-3  
**Prerequisite:** ART 3091.  A continuation of Graphic Design I with emphasis on typography, package design, and preparation of portfolio comprehensives.

ART 3101L  Jewelrymaking I 0-6-3  
**Prerequisites:** ART 2012.  Introduction to the design and production of jewelry and small metals, emphasis is placed on techniques employing casting and fabrication processes. Students must pass a safety test on the use of equipment and materials.

ART 3111L  Watercolor I 0-6-3  
**Prerequisite:** Art Major or permission of the Department Head.  The introduction to the technical aspects of aqueous media painting featuring transparent...
and opaque approaches.

**ART 4024L Drawing IV**  
Prerequisite: ART 3023L or permission of the Department Head. An advanced course in drawing with emphasis on personal stylistic development. May be repeated for credit.

**ART 4042L Painting II**  
Prerequisite: ART 3041L. An advanced course in painting using a variety of media and techniques. The emphasis is on the development of personal style. May be repeated for up to 9 hours of credit.

**ART 4052L Printmaking II**  
Prerequisite: ART 3051L. An advanced course which gives the student an opportunity for further expressive development and experimentation with a variety of printmaking processes. May be repeated for up to 9 hours of credit.

**ART 4062L Ceramics II**  
Prerequisites: ART 3061L or permission of the Department Head. An advanced course including sculptural construction methods and functional approaches. May be repeated for up to 9 hours of credit.

**ART 4072L Photography II**  
Prerequisite: ART 3071L. An advanced course in black and white photography with emphasis on image manipulation and experimental processes. A 35mm camera with manual controls is required. May be repeated for up to 9 hours of credit.

**ART 4082L Sculpture II**  
Prerequisite: ART 3081L or permission of Department Head. Intermediate work in additive, subtractive, replacement, and modeling sculpture techniques and methods.

**ART 4083L Sculpture III**  
Prerequisite: ART 4082L. The continuation of ART 4082L with further experimentation with sculptural forms and techniques. May be repeated for up to 9 hours of credit.

**ART 4093L Graphic Design III**  
Prerequisite: ART 3092L. An advanced course in graphic design with emphasis on illustration and preparation of portfolio comprehensives.

**ART 4094L Graphic Design IV**  
Prerequisite: ART 4093L or permission of Department Head. An advanced computer graphics course. The student will concentrate on web page design and three dimensional modeling. May be repeated for credit.

**ART 4095L Graphic Design V**  
Prerequisite: ART 4094L or permission of Department Head. An advanced computer graphics course which concentrates on the creation of computer animation. May be repeated for credit.

**ART 4102L Jewelrymaking II**  
Prerequisite: ART 3101L. Advanced techniques and further exploration of jewelry and small metals design. May be repeated for up to 9 hours of credit.
ART 4112L  Watercolor II  
Prerequisite: ART 3111L or permission of the Department Head. Advanced aqueous media techniques and methods for the development of a personal expressive and/or communicative style. May be repeated for up to 9 hours of credit.

ART4140L  Technical Problems in Art  
Prerequisite: Junior or senior level standing in art. Designed for the advanced student capable of independent study for the purpose of solving studio problems and conducting creative research. Purchase of materials may be required. May be repeated for up to 3 hours of credit.

ART 4150L  Directed Study in Art  
Prerequisite: Approval of the supervising faculty member and Department Head. Students are provided the opportunity to explore individual problems in art. Purchase of art materials may be required. May be repeated for up to 3 hours of credit.

ART 4180L  Workshop in Art  
Selected topics presented in an intensive workshop setting. Purchase of art materials may be required. May be repeated for up to 3 hours of credit.

ART: OTHER ART COURSES

ART 1010  Art Fundamentals  
An introduction to the formal elements and design principles of art. Content includes hands-on experiences for students interested in but not majoring in art or art education. Credit for this course cannot be used to satisfy requirements for Area F or the senior curriculum for ART or ARE majors. Purchase of art materials is required.

ART 3090  Advertising Layout  
An introduction to the fundamental principles and processes related to contemporary advertising, including basic desktop publishing skills.

ART 4160  Internship in Art  
Prerequisite: Art Major and permission of the department head. Supervised work experience through cooperatively planned practical job related to the student’s degree. May be repeated for credit.

ART 4170  Professional Preparation  
Prerequisite: ART 2030L. A capstone course for the production of a professional quality portfolio, preparation of works for exhibition, learning gallery procedures, planning for and participation in the senior exhibition.

AS: AEROSPACE STUDIES

AS 1000  Leadership Laboratory  
The AS 1000 Leadership Laboratory (LLAB) for 1000- and 2000-level students’ courses includes a study of Air Force customs and courtesies, drill ceremonies, military commands, and Air Force opportunities. LLAB for 3000- and 4000-level students provides advanced leadership experiences that involve
planning, organizing and executing cadet training activities, as well as preparing and presenting briefings and other oral and written communications.

AS 1001 Fundations of the U.S. Air Force I 1-0-1
Co-requisite: AS 1000. A survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps.

AS 1002 Fundations of the U.S. Air Force II 1-0-1
Co-requisite: AS 1000. A survey course designed to continue the student’s to the United States Air Force and Air Force Reserve Officer Training Corps.

AS 2001 The Evolution of the U.S. Air and Space Power Force I 1-0-1
Co-requisite: AS 1000. Examines general aspects of the air and space power from a historical perspective. The course covers a time period from the first ballons and dirigibles to the Korean War.

AS 2002 The Evolution of the U.S. Air and Space Power Force II 1-0-1
Co-requisite: AS 1000. Examines general aspects of the air and space power from a historical perspective. The course covers a time period from the Vietnam War to the global positioning systems of the Persian Gulf War.

AS 3001 Leadership Studies I 3-0-3
Co-requisite: AS 1000. A study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluations systems, leadership ethics, and communication skills required of an Air Force junior officer.

AS 3002 Leadership Studies II 3-0-3
Co-requisite: AS 1000. Continues the study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluations systems, leadership ethics, and communication skills required of an Air Force junior officer.

AS 4001 National Security 3-0-3
Co-requisite: AS 1000. Examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine.

AS 4002 Preparation for Active Duty 3-0-3
Co-requisite: AS 1000. The final step in preparing an officer candidate for active duty. This course examines the military as a profession, officership, military justice, and civilian control of the military.

ASTRONOMY

ASTR 1000 Introduction to the Universe 3-0-3
Students may not receive academic credit for ASTR 1000 if they receive academic credit for ASTR 1010K or ASTR 1020K. A survey of the universe, examining the historical origins of astronomy; the motions and physical properties of the Sun, Moon, and planets; the formation, evolution, and death of stars; and the structure of galaxies and the expansion of the Universe.

ASTR 1010K Astronomy of the Solar System 3-2, 5-4
Astronomy from early ideas of the cosmos to modern observational techniques. The solar system planets, satellites, and minor bodies. The origin and evolution of the solar system. Three lectures and one night laboratory session per week.

ASTR 1020K Stellar and Galactic Astronomy 3-2.5-4
The study of the Sun and stars, their physical properties and evolution, interstellar
matter, star clusters, our Galaxy and other galaxies, the origin and evolution of the Universe. Three lectures and one night laboratory session per week.

**ASTR 2010  Tools of Astronomy 0-2-1**
An introduction to observational techniques for the beginning astronomy major. Completion of this course will enable the student to use the campus observatory without direct supervision. The student will be given instruction in the use of the observatory and its associated equipment. Includes laboratory safety, research methods, exploration of resources (library and Internet), and an outline of the discipline.

**ASTR 2020  The Planetarium 0-2-1**
Instruction in the operation of the campus planetarium and delivery of planetarium programs. Completion of this course will qualify the student to prepare and give planetarium programs to visiting groups.

**ASTR 3101-3102 Principles of Astronomy I, II 3-2.5-4 each**
Corequisite for ASTR 3101: PHYS 2211. Prerequisite for ASTR 3102: ASTR 3101. A calculus-based course covering astronomical observations, analysis of celestial motions, and a study of the solar system in 3101, and covering the physics of the Sun and stars, stellar evolution, galactic structure and the universe in 3102.

**ASTR 3220 Cosmology 3-0-3**
Prerequisite: ASTR 1020 and PHIL 2010 or consent of the instructor. Also offered as PHIL 3220. A scientific and philosophical study of our perception of the universe, including the world views of Ptolemy, Copernicus, and Einstein.

**ASTR 4100 Observational Techniques 2-2-3**
Prerequisite: ASTR 3101. Aspects of instrumental and observational astronomy including the optics of the telescope, spectroscopy, photography, photometry, electronics, CCDs, astrometrical problems, the operation of the observatory, and mathematical methods of data reduction.

**ASTR 4400 Physics of the Solar System 3-0-3**
Prerequisite: ASTR 3101. Celestial mechanics; physical features of the Sun, planets, moons, and other material in the solar system.

**ASTR 4410 Astrophysics 3-0-3**
Prerequisites: PHYS 4401 and ASTR 3101. Radiative transfer in the stellar atmosphere, the interior structure of stars, stellar evolution, physical processes in gaseous nebulae, cosmology.

**ASTR 4800 Internship in Astronomy 0-6-3 to 0-12-6**
Active participation in research in astronomy, or in some field of science closely allied with astronomy, or work with a planetarium or museum which involves planetarium operations and programs. A daily log of activities, a report on the work done, and a research paper relating the work done to the field of astronomy are required.

**ASTR 4900 Special Topics in Astronomy 1-0-1 to 4-4-6**
Prerequisite: ASTR 3101, consent of advisor and instructor. Topics to be assigned by instructor; may be taken more than once if topics are different; up to a total of 6 credit hours.
ASTR 4950  Directed Study in Astronomy  1-0-1 to 4-4-6
Prerequisites: ASTR 3101, consent of advisor, instructor, and department head. Study in area or subject not normally found in established courses offered by the department; may also allow students to explore in more detail and/or depth an area or subject covered by the department in astronomy; up to a maximum of 6 credit hours.

BIOLOGY

BIOL 1010 Introduction to Biology: The Evolution and Diversity of Life  3-0-3
Co-requisite: BIOL 1020L. An introduction to the diversity of life on Earth with a special emphasis on ecological and evolutionary processes and relationships.

BIOL 1020L Biodiversity Lab  0-2-1
Co-requisite: BIOL 1010. A laboratory course to accompany Biology 1010 emphasizing the diversity of life.

BIOL 1030 Introduction to Biology: Organismal Biology  3-0-3
Co-requisite: BIOL 1040L. An introduction to modern biology for the non-major with special emphasis on the processes involved in the development and maintenance of complex multicellular organisms.

BIOL 1040L Organismal Biology Lab  0-2-1
Co-requisite: BIOL 1030. A laboratory course to accompany Biology 1030 emphasizing the structure of multicellular organisms.

BIOL 1050 Human Biology  3-0-3
An introduction to the processes underlying the interactions of humans and the natural world. The topics to be covered include: physiological processes and their relationship to diseases; human genetics and biotechnology; the evolutionary basis of human structure and behavior, and the impact of humans on natural communities.

BIOL 1060 Introduction to Marine Biology  3-0-3
A non-technical study of marine and estuarine habitats emphasizing habitat types and biological community diversity. Topics of study will include, but are not limited to: organismal adaptations to a marine environment, bio-diversity and taxonomy of major groups of marine organisms, ecosystem types and characteristics and oceanic scale processes. Some voluntary overnight, weekend field trips with emphasis on collecting coastal fauna and study of Georgia coastal habitats.

BIOL 1070 Microbes and Humans  3-0-3
The study of microbes and humans with an emphasis upon infectious diseases and the role of microbes in food production, bioengineering, and industrial processes.

BIOL 1080 Conservation Biology  3-0-3
Basic biology underlying current issues in the conservation of rare species, native ecosystems, and biological diversity in general. Exploration of the nature and geographic distribution of biodiversity and threats to it, discussed in the context of ecological and population-genetic principles as well as socio-economic and political realities. Theory and case studies of different modes of preserving biodiversity.