Go to Hospitality Management (cont.) through Women's Studies courses

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**COURSE NUMBERING SYSTEM**

The numbering system for courses of study at this institution is as follows:

- 10000s Freshman level
- 20000s Sophomore level
- 30000s Junior level
- 40000s Senior level
- 50000s and above generally open only to graduate students

Undergraduate courses (10000-49999) are generally open to students of a class rank equivalent to the levels indicated. Students participating in the Honors, Early Admissions, and Advanced Placement programs, as well as those who otherwise present evidence of qualifications beyond their class rank, may enroll in the appropriate undergraduate courses with the approval of their advisors and the instructors or departments offering the courses.

Most courses are offered in a regular sequence to meet students’ programmatic needs; however, the availability of any specific course in a given semester is subject to sufficient student demand and available resources. Some courses require that a fee be paid in addition to instructional and general fees. These special fees, listed with the Catalog copy for each appropriate course, are subject to change at any time, upon approval by the Board of Trustees.

Undergraduate students may enroll in graduate courses only with prior written approval of their academic deans and the dean of the appropriate graduate school.

Courses marked with an asterisk (*) are offered only at the Regional Campuses. Course abbreviations marked with an asterisk indicates all course offerings are at the Regional Campuses.

*Courses offered only at Regional Campuses.*
## Course Abbreviations

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*Courses offered only at Regional Campuses.
ACCOUNTING (ACCT)

23020 Introduction to Financial Accounting (3)
Introduction to principles of accounting as they relate to financial accounting and the preparation of financial statements. Prerequisite: 28 or more semester hours.

23021 Introduction to Managerial Accounting (3)
Introduction to principles of accounting as they relate to managerial accounting, including cost relationships. Prerequisite: ACCT 23020.

Notes About the Courses That Follow:

NOTE 1: Registration in any 30000-level accounting course except 33000, 33061 and 33063 is restricted to officially declared or conditionally declared accounting majors and minors. The 40000-level accounting courses are restricted to officially declared accounting majors who have satisfied the progression requirements.

NOTE 2: Admission to all 30000/40000-level courses requires completion of all prerequisites and appropriate academic status.

NOTE 3: Registration in ACCT 33000, 33061 and 33063 is restricted to the following groups:
1. Officially declared advanced business administration majors.
2. Officially declared nonbusiness majors with a minimum 60 semester hours completed and a minimum 2.00 cumulative GPA. Registration priority is extended to those majors that specifically require ACCT 33000, 33061, 33063.
3. Officially declared premajor (with a minimum 60 semester hours completed and a minimum 2.50 cumulative GPA) registering for advanced business courses.

33000 Fundamental Tax Procedures (3)
Nontaxation presentation of federal income tax laws and regulations as they relate to individuals. Prerequisite: Junior standing; nonaccounting majors; see notes 2 and 3.

33001 Corporate Accounting I (3)
The review of the accounting cycle; financial statement preparation; accounting for sales, receivables, inventory, current liabilities and fixed assets. Written communication and professional accounting research skills are emphasized. Prerequisite: ACCT 23021; see current Catalog notes 1 and 2.

33004 Introduction to Accounting Systems (3)
Provides an overview of accounting information systems with emphasis on systems design and internal controls. Interpersonal skills and computer applications are emphasized. Prerequisites: ACCT 23021 and M&IS 24053.

33010 Cost Accounting (2)
Cost accounting for manufacturing and service organizations including cost determination, cost analysis, and reporting costs for decision-making, planning and control. Ethical decision making and computer applications are emphasized. Prerequisites: ACCT 33001 and 33004.

33012 Corporate Accounting II (3)
Accounting for long-term liabilities, debt and equity investments, leases, pensions, and other post-retirement benefits, income tax allocation, and owners’ equity; statement of cash flows. Verbal communication and professional accounting research skills are emphasized. Prerequisites: ACCT 33001 and 33004.

33061 Financial Reporting Issues and Analysis (3)
Issues relative to the balance sheet, income statement and cash flow statement. Topics include assets, liabilities, owner’s equity, revenue recognition, EPS, deferred taxes and pensions. Cannot be counted toward accounting major. Prerequisite: Junior standing; ACCT 23021; see notes 2 and 3.

33063 Cost Control and Analysis for Management (3)
Cost accounting concepts and procedures; analysis of revenue, cost and income variances. Open only to nonaccounting majors; cannot count toward accounting major. Prerequisite: ACCT 23021; nonaccounting majors; see notes 2 and 3.

43010 Principles of Auditing and Control (3)
Integration of concepts and practical aspects of auditing. The importance of strong controls is stressed. Ethical decision making and written communication skills are emphasized. Prerequisites: ACCT 33010 and 33012. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

43013 Advanced Management Accounting (3)
Advanced techniques and issues in costing and accounting measurement for management planning, decision-making and control. Professional accounting research, verbal communication and ethical decision making skills are emphasized. Prerequisite: ACCT 33010; see notes 1 and 2.

43014 Advanced Accounting Systems (3)
Emphasizes the analysis, design and implementation of accounting information systems and internal controls. Written communication, ethical decision making and computer application skills are emphasized. Prerequisite: ACCT 33004; see notes 1 and 2.

43020 Corporate Accounting III (3)
Business combinations, consolidated financial statements, specialized disclosures; foreign currency impacts; intercorporate investments. Professional accounting research and interpersonal skills are emphasized. Prerequisites: ACCT 33012 and 43031.

43031 Income Taxation (3)
Basic concepts of income recognition and deductions for individuals and corporations. Detailed coverage of the taxation of C corporations. Written communication skills are emphasized. Prerequisite: ACCT 33012; see current Catalog notes 1 and 2.

43033 Income Tax II (2)
Advanced partnership and corporate tax problems; estate and gift taxation; tax administration and practice. Professional accounting research and written communication skills are emphasized. Prerequisite: ACCT 43031.

43034 Nonprofit Accounting and Auditing (3)
Unique nonprofit, financial reporting, managerial accounting and financial and operating audits for government and nonprofit entities. Professional accounting research, written communication and ethical decision making skills are emphasized. Prerequisite: ACCT 33012.

43092 Accounting Internship (3)
Study of activities related to concurrent on-the-job experience with cooperating industrial and public accounting firms. Professional accounting research and written communication skills are emphasized. S/U grading. Prerequisites: Junior standing; permission of instructor; see notes 1 and 2.

43093 Variable Title Workshop in Accounting (1-3)
To be determined when a specific course is proposed for a particular term. S/U grading. Prerequisite: Permission.

43095 Special Topics: Accounting (1-3)
Special topics course that will be offered periodically with different topics and different faculty involved each time the course is offered. Prerequisites: Senior standing; permission; see notes 1 and 2.

43096 Individual Investigation in Accounting (1-3)
Open only to senior majors in accounting with permission of advisor. Prerequisites: Senior accounting majors; permission; see notes 1 and 2.
ACCOUNTING TECHNOLOGY (ACTT)*

11000  Accounting I — Financial (4)
Introduction to financial accounting, including principles generally accepted in preparation of accounting statements for users outside of the business organization. Prerequisite: None.

11001  Accounting II — Managerial (4)
Introduction to managerial accounting, including accounting for manufacturing firms, budgeting, standard cost systems, direct costing, segment reporting and cost-volume-profit analysis. Prerequisite: ACTT 11000.

11003  Payroll Accounting (2)
Introduction to the payroll function, including preparation of payroll and related federal, state and local tax forms required of all businesses. Both manual and computerized applications will be studied. Prerequisite: ACTT 11000 or permission.

20012  Accounting Software Applications (3)
A lecture/computer laboratory course using accounting, spreadsheet and word processing software. Prerequisite: ACTT 11001 and COMT 11000 or permission of full-time ACTT faculty.

21000  Accounting III — Financial (4)
An intensive and practical study of financial accounting principles pertaining to balance sheet and income statement accounts, and statement analyses. Prerequisite: ACTT 11001.

21001  Accounting IV — Financial (2)
Continuation of ACTT 21000. Also considers income statement accounts and financial statement analyses. Both manual and computerized applications will be studied. Prerequisite: ACTT 21000.

21003  Fundamentals of Tax Preparation (3)
A nontechnical presentation of federal income tax laws and regulations as they relate to individuals. Prerequisite: ACTT 11000 or permission.

21006  Introduction to Corporate Tax Preparation (3)
An introduction to the preparation of corporation tax reports. Prerequisite: ACTT 21003.

21063  Introduction to Cost Accounting (3)
Cost accounting concepts and systems; role of costs in decision making; budgeting concepts and procedures; analysis of revenue, cost, and income variances. Prerequisite: ACTT 11001.

21092  Internship in Accounting Technology (2-3)
Students participate in a supervised field experience. Each credit hour requires a minimum of 7 hours of work per week for 15 weeks if the position is unpaid and 10 hours of work per week for 15 weeks if the position is paid. S/U grading. Prerequisites: ACTT 21000 and permission.

21095  Special Topics (1-3)
Special topics in accounting. Repeated registration permitted. Prerequisite: Permission.

21096  Individual Investigation — Accounting Technology (1-3)
Independent in-depth research of an accounting topic supervised and coordinated by an accounting technology faculty member. Prerequisites: 12 credit hours of ACTT courses and permission.

ADOLESCENT/ADULT EDUCATION (ADED)

32142  Principles of Teaching Adolescents (3)
Orientation to adolescence and the teaching-learning process. This course includes 30 field/clinical hours in an urban setting. IP grade permissible. Prerequisites: ITEC 19255, EDPF 29255. Admission to advanced study. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

32268  The Secondary School Mathematics Curriculum (3)
The secondary school mathematics curriculum will be examined. Students, textbooks and recommendations will be investigated. This course includes 30 field/clinical hours. Prerequisites: Advanced standing; cohort seminars I and II; MATH 22005.

32272  Teaching of Speech (4)
Methods of teaching speech communication, radio-TV-film, and theater in secondary school curricula. This course contains 55 field/clinical hours. Prerequisite: Advanced standing and ADED 32142 or permission.

32275  Social Studies Education and the Social Sciences (3)
First of two special methods courses on teaching social studies at the secondary level. Focuses on achieving the purpose of social studies through attention to instruction, planning, curriculum and assessment. Prerequisite: ADED 32142.

32277  Teaching Science in Secondary Schools (3)
Goals, methodology and resources for effective teaching of science to adolescents and young adults. Prerequisites: ADED 32142 and advanced standing. Special fee: $5/ce. hr.—subject to change.

42157  Teaching with Microcomputers: Secondary Classroom (3)
In-depth study of instructional use of microcomputers in all subject areas of the secondary classroom. Use of BASIC and LOGO in developing and modifying instructional software. Prerequisite: None.

42196  Individual Project in Adolescent Education (2-4)
IP grade permissible. Prerequisite: Permission.

42268  Teaching of Mathematics in Secondary Schools (3)
Methodology and materials for effective teaching of secondary school mathematics will be discussed and implemented in field experiences. Course includes 46 field/clinical hours. Mathematics courses through MATH 22005. Prerequisites: Advanced standing; cohort seminars I, II, III, ADED 32268.

42272  Teaching of Computer Science in Secondary School (4)
Methodology and materials for effective teaching of secondary school computer science and computer use. Prerequisite: CS 43001 and 33101; ADED 32142.

42275  Teaching Social Studies in Secondary Schools (3)
An advanced special methods course designed to prepare future social studies teachers for student teaching and their entry year into the profession. Addresses a range of topics and issues in an in-depth manner through project-oriented learning activities. Prerequisite: ADED 32275.

42277  Topics in Secondary School Science Teaching (3)
Analysis of trends in science teaching and materials and methods for introducing topics from the history of science and from health education. Prerequisite: ADED 32277.

42278  Assessment in Language Arts (3)
Models, principles and strategies for assessing student learning in integrated English language arts. Practice with multiple assessment measures including portfolios for literature, language and composition studies. Prerequisite: ADED 32147.

42292  Field Work Practicum (1-4)
Designed to meet the individual needs of education students who require additional field clinical experiences prior to student teaching. S/U and IP permissible. Prerequisite: Permission, junior or senior standing.

42295  Special Topics in ADED (1-3)
Prerequisite: Permission.
42010 Evolution of the United States Air Force Air and Space Power I (1)
Survey course examines air and space power from an historical perspective. Course covers period from the Vietnam War to the Gulf War plus a look at the Air Force of the future. Prerequisite: None.

30105 Leadership Evaluation I (2)
Leadership Evaluation will develop self-discipline as related to military conduct and measure the effectiveness of the person’s capability to interact in a leadership role during field training. Prerequisites: ASTU 10101, 10102, 20101, 20102.

49525 Inquiry into Professional Practice (3)
Reflection on teaching for the purpose of instructional improvement. Emphases are placed on preparing, implementing and assessing a curricular unit; collaborative problem solving; conducting an action research project; and creating a portfolio. Prerequisite: Admission to student teaching.

42011 Secondary Student Teaching (5)
Provides a 10-week student teaching experience. See Student Teaching section of this Catalog. S/U and IP permissible. Prerequisite: None.

42012 Secondary Student Teaching (4)
Provides a 10-week student teaching experience. See Student Teaching section of this Catalog. S/U and IP permissible. Prerequisite: Eligibility for admission to student teaching.

49505 Leadership Practicum II (4)
A continuation of the introduction to American Sign Language and receptive ASL skills and introductory expressive skills. Cross-listed with SPED 19201. Prerequisite: None. This course may be used to satisfy the LERs.

50248 Teaching Critical Thinking (2)
Techniques, procedures and materials for developing skills in application of analysis and thinking process. Prerequisite: ADED 32142 and senior standing.

59602 Leadership Practicum I (1-4)
For placement and credit in foreign language courses see Arts and Sciences—Foreign Language Requirement—Placement and Credit.

49505 Inquiry into Professional Practice (3)
Reflection on teaching for the purpose of instructional improvement. Emphases are placed on preparing, implementing and assessing a curricular unit; collaborative problem solving; conducting an action research project; and creating a portfolio. Prerequisite: Admission to student teaching.

42010 Evolution of the United States Air Force Air and Space Power I (1)
Survey course examines air and space power from an historical perspective. Course covers period from the Vietnam War to the Gulf War plus a look at the Air Force of the future. Prerequisite: None.

30105 Leadership Evaluation I (2)
Leadership Evaluation will develop self-discipline as related to military conduct and measure the effectiveness of the person’s capability to interact in a leadership role during field training. Prerequisites: ASTU 10101, 10102, 20101, 20102.

42011 Secondary Student Teaching (5)
Provides a 10-week student teaching experience. See Student Teaching section of this Catalog. S/U and IP permissible. Prerequisite: None.

42012 Secondary Student Teaching (4)
Provides a 10-week student teaching experience. See Student Teaching section of this Catalog. S/U and IP permissible. Prerequisite: Eligibility for admission to student teaching.

49505 Leadership Practicum II (4)
A continuation of the introduction to American Sign Language and receptive ASL skills and introductory expressive skills. Cross-listed with SPED 19201. Prerequisite: None. This course may be used to satisfy the LERs.

42011 Secondary Student Teaching (5)
Provides a 10-week student teaching experience. See Student Teaching section of this Catalog. S/U and IP permissible. Prerequisite: None.

42012 Secondary Student Teaching (4)
Provides a 10-week student teaching experience. See Student Teaching section of this Catalog. S/U and IP permissible. Prerequisite: Eligibility for admission to student teaching.

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A continuation of the introduction to American Sign Language and receptive ASL skills and introductory expressive skills. Cross-listed with SPED 19201. Prerequisite: None. This course may be used to satisfy the LERs.

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A continuation of the introduction to American Sign Language and receptive ASL skills and introductory expressive skills. Cross-listed with SPED 19201. Prerequisite: None. This course may be used to satisfy the LERs.

42011 Secondary Student Teaching (5)
Provides a 10-week student teaching experience. See Student Teaching section of this Catalog. S/U and IP permissible. Prerequisite: None.

42012 Secondary Student Teaching (4)
Provides a 10-week student teaching experience. See Student Teaching section of this Catalog. S/U and IP permissible. Prerequisite: Eligibility for admission to student teaching.

49505 Leadership Practicum II (4)
A continuation of the introduction to American Sign Language and receptive ASL skills and introductory expressive skills. Cross-listed with SPED 19201. Prerequisite: None. This course may be used to satisfy the LERs.
29202 Intermediate American Sign Language II (3)
Development of ASL fluency in expressive and receptive mode to beginning advanced level. Continue to increase awareness of deaf culture values, customs and conversational habits. Cross-listed with SPED 29202. Prerequisite: ASL 29201 or SPED 29201 or equivalent.

39201 Advanced American Sign Language I (3)
(Cross-listed with SPED 39201) Development of ASL fluency in expressive/receptive modes to advanced levels to enable communication at conversational speed with unfamiliar deaf individuals. Focus on differences in sign according to gender and age. Increased awareness of deaf cultural values, customs, conversational habits. Prerequisite: ASL/SPED 29202.

39202 Advanced American Sign Language II (3)
(Cross-listed with SPED 39202) ASL fluency expressive and receptive modes to advanced levels; enable fluent communication with unfamiliar deaf individuals using culturally, situational gender- and register-specific conversational repair strategies when needed. Increased awareness of deaf cultural values. Prerequisite: ASL/SPED 39201.

40902 Deaf Residential School Practicum (1-3)
(Cross-listed with SPED 40902) Weeklong practicum at a residential school for the deaf; 24-hour interaction with deaf students and adults. Students will stay on campus. Conduct, interaction, sign language skills, maturity, responsibility and performance will be evaluated by staff at the school. S/U grading. Prerequisite: ASL/SPED 29202; ASL 49309.

40906 Individual Investigation (2-3)
(Cross-listed with SPED 40906) Individual investigation of problems in American Sign Language, ASL pedagogy and/or deaf culture. IP grade permissible. Prerequisite: Departmental permission.

49101 Deaf Culture and Community (3)
(Cross-listed with SPED 49101) Exploration of historical events and figures from a deaf community perspective. Life experiences of “typical” deaf individuals as minority culture representatives interacting with majority culture institutions and processes as depicted in narrative storytelling and folklore. Prerequisite: None.

49105 Signed English and Manually Coded English Systems (3)
(Cross-listed with SPED 49105) Receptive and expressive use of English-based sign language systems; ASL root words, prefix/suffix use; simultaneous speaking and signing. Experience with signing exact English, total communication systems, pidgin signed English, contact sign language, manually coded English and English signing systems. Prerequisite: ASL 29202.

49108 American Sign Language Linguistics and Usage (3)
(Cross-listed with SPED 49108) Analytical study of American Sign Language syntax, semantics, morphology, and pragmatics; comparison of spoken languages and ASL using the stokoe system, impact of educational setting characteristics on linguistic processes. Prerequisite: ASL 29202.

49309 Introduction to Deaf Studies (3)
(Cross-listed with SPED 49309) Introductory survey course provides informational base and understanding of experiences of deaf people as a cultural minority. Includes etiology and prevalence data, service delivery systems, diagnosis and assessment of issues and communication systems. 20 field hours. Prerequisite: None. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

AMERICAN STUDIES (AMST)

10001 Introduction to American Studies (3)
Exposure to culture theory, analysis of major patterns and periodization in American culture. Required for American studies majors; also for elective credit. Prerequisite: None.

40095 Special Topics (3)
Selected subjects and/or themes in American culture. Prerequisites: Junior standing and permission.

40096 Individual Investigation (1-3)
(Repeated registration permissible) Individual research project. Prerequisites: Senior standing and permission.

40179 Senior Colloquium (3)
Intensive research into comparative culture pattern or theme, reading and discussion. Prerequisites: Senior standing and permission.

ANTHROPOLOGY (ANTH)

18101 Introduction to Cultural Anthropology (3)
Exploration of human diversity through the analysis of world cultures. Prerequisite: None. This course may be used to satisfy the LERs and the university Diversity Requirement.

18210 Introduction to Cultural Anthropology (3)
Exploration of human diversity through the analysis of world cultures. Prerequisite: None. This course may be used to satisfy the LERs and the university Diversity Requirement.

18420 Introduction to Archaeology (3)
Archaeology is the study of the human past using material remains. The themes of time, change and human diversity will be emphasized as students learn about ancient societies and how they teach us about ourselves. Prerequisite: None. This course may be used to satisfy the LERs and the university Diversity Requirement.

28210 Primitive Art (3)
Anthropological approach to the study of art form and aesthetics that especially looks at styles and traditions that developed on Oceania, sub-Saharan Africa, Siberia, Australia and North America, both Indian and Eskimo. Prerequisites: ANTH 18210 or ARTH 12001 or 22006, 22007.

38050 Theory in Cultural Anthropology (3)
Development of anthropological thought. Prerequisites: ANTH 18201 and junior standing or permission.

38096 Individual Investigation in Anthropology (1-3)
Readings and/or research supervised by a member of the anthropology staff. IP grade permissible. Prerequisite: Permission.

38240 Culture and Personality (3)
Comparative cross-cultural socialization and personality development; group and national character; relationship of personality to politics, social and occupational roles. Prerequisite: ANTH 18210 or SOC 12050 or permission. This course may be used to satisfy the university Diversity Requirement.

38250 Religion: A Search for Meaning (3)
How human beings search for meanings in religious experience; the universality and cultural conditioning of this phenomenon. Prerequisite: ANTH 18210.

38260 Patterns of Peasant Life (3)
“Rural” peasantry found throughout the world, examined analytically as one of the components of change in the emergence of new nations. Prerequisite: ANTH 18210.
38292 Field Work in Cultural Anthropology (3)
Practical experience carrying out field research in cultural anthropology under the supervision of members of the anthropology faculty. Prerequisite: ANTH 18210 or 18420 or permission.

38420 Prehistory: Urbanism (3)
Survey of evolution of urban society, emphasizing development of food production, village-farming community, and urban life in Old and New worlds. Prerequisite: ANTH 18420.

38430 Lithics (3)
History of chipped-stone flint working and toolmaking is traced from man’s earliest beginnings through the spread of ground stone tools. These developments are examined chronologically, spatially and functionally. Prerequisite: ANTH 18420.

38480 Archaeological Analysis (2)
Methods necessary for the description and laboratory analysis of prehistoric remains. Course will include laboratory exercises as well as class lectures. Prerequisites: ANTH 18420 and permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

38490 Quantitative Anthropology (3)
Introduces the quantitative description of numerical data, provides an understanding of the basis of probability theory and statistical inference and acquaints the student with the role of computers in anthropology. Prerequisites: ANTH 18420 or 18630 or 38630.

38492 Field Work in Archaeology (3)
Field and laboratory techniques in archaeological research. Prerequisite: Permission.

38630 Principles of Biological Anthropology (3)
Review of fundamental subfields of modern biological anthropology, including human population genetics, primate paleontology, human evolution and modern human taxonomy and variation. Prerequisite: None.

38680 Primate Societies (3)
This course will be a survey of the behavior of living primates. Topics covered include reproductive and foraging strategies, social structure and primate conservation. Antecedent human behavior will also be considered. Prerequisite: ANTH 18630 or 38630.

48003 Variable Title Workshop in Anthropology (1-6)
Classroom discussions and field study activity focused on professional and disciplinary concerns. Specific content varies with workshop group. SU grading. Prerequisite: Junior standing and permission.

48065 Special Topics in Anthropology (3)
Offered irregularly when unusual resources and/or opportunities permit. Topic announced when scheduled. Prerequisites: ANTH 18210 or 18420 and junior standing or permission.

48210 Culture and Communication (3)
Exploration of the way in which language and culture. Covers the major principles of formal linguistics and their use in anthropology; case studies from ethnography of speech. Prerequisites: ANTH 18210 or SOC 12050 and junior standing or permission.

48212 Kinship and Social Organization (3)
This course employs cross-cultural approaches to the understanding of marriage, family organization, descent and kinship systems. Prerequisite: ANTH 18210. This course may be used to satisfy the university Diversity Requirement.

48214 Politics of Culture (3)
This course will address the way in which culture has been politicized. It will look at issues such as cultural relativism and objectivity in anthropological studies with reference to specific peoples and geographic areas. Prerequisite: None. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

48220 Cultural Ecology (3)
Analysis of the relationship between socio-cultural systems and the physical-biological environment. Prerequisites: ANTH 18210 and junior standing or permission.

48225 Archaeology of Death (3)
From excavations of prehistoric burial mounds to studies of colonial graveyards, the archaeology of death has always occupied a prominent place in anthropological research. The course explores approaches to diverse meanings of life and death. Prerequisites: ANTH 18420, junior standing, or permission.

48230 Socio-Cultural Change (3)
Analysis of institutional change where peoples of different cultures are in sustained contact. Prerequisites: ANTH 18210 and junior standing or permission.

48240 The Symbolic Imperative (3)
Studies the problem of cultural meanings from the perspective of symbols: the objects, persons, relations and acts through which people communicate with each other and perceive order in their cultures. Prerequisites: ANTH 18210 or SOC 12050 and junior standing or permission.

48250 Culture and Curing (3)
Examination of the relationship between cultural beliefs about the nature of reality and the essence of humanity, and the causation and alleviation of disease. Prerequisite: ANTH 18210 or permission. This course may be used to satisfy the university Diversity Requirement.

48260 Culture Conflict (3)
Analyzes structured conflict situations between widely different cultures, both simple and complex, including intertribal conflict, colonial conflict and problems arising from contact between dominant and subdominant social systems. Prerequisite: ANTH 18210 or permission. This course may be used to satisfy the university Diversity Requirement.

48270 Native Peoples of North America (3)
Comparative analysis of North American Indian peoples and cultures with special reference to linguistic groupings, cultural areas and contemporary issues. Prerequisite: ANTH 18210 and junior standing; or 12 hours of anthropology coursework including ANTH 18210.

48291 Seminar in Revolution and Culture Change (3)
The seminar deals with the interrelationship between culture and revolution since antiquity. The main focus is on dramatic and abrupt culture change. Prerequisite: ANTH 18210 or permission.

48391 Seminar in History of Anthropology (3)
Seminars focusing on the development of anthropology within the intellectual and historical context from the height of the enlightenment to the close of World War II. Prerequisite: ANTH 18210 or permission.

48410 Stone Age Archaeology (3)
Survey of Old World cultural history, using archaeological data. Stress the period of 3 million years ago to 10,000 years ago. Prerequisites: ANTH 18420 and junior standing or permission.

48420 Archaeology of North America (3)
Survey of major North American and Mexican archaeological sequences with emphasis on inter-areal relationships. Prerequisites: ANTH 18420 and junior standing or permission.

48425 Prehistory: Mesoamerica (3)
An examination of cultural attainments in pre-Columbian Mesoamerica from the evidence of the earliest man to the coming of the Spanish. Prerequisites: ANTH 18420 and junior standing or permission.
48440 Prehistory: Ohio (3)
Prehistoric culture sequence of Ohio with special emphasis on ecological and cultural interpretations. Prerequisites: ANTH 18420 and junior standing or permission.

48450 States and Empires (3)
This course presents a comparative analysis of both Old and New World histories to explore definitions, causal explanations and organizational parameters associated with prehistoric state and empire-level societies. Prerequisite: ANTH 18420.

48630 Pacific Island Cultures (3)
Peoples and characteristics of culture areas of Pacific Islands, including Polynesia, Melanesia and Micronesia, with analysis of several representative cultures from these areas. Prerequisites: ANTH 18210 and junior standing or 12 hours of anthropology coursework including 18210. This course may be used to satisfy the university Diversity Requirement.

48691 Seminar in Ethnic Studies (3)
Comparative analysis of peoples and cultures in one of the following culture areas: Africa, South Asia, Southeast Asia, Europe and Latin America. Offered when special resource personnel are available. Prerequisite: ANTH 18210 or SOC 12050 or permission.

48692 Field Work in Biological Anthropology (3)
Can be applied to any bioanthropology field of study and off-campus activity, ranging from museum work to U.S. and international research projects. Prerequisite: Approval of project and faculty sponsor.

48810 Human Paleontology (3)
Study of primate fossils of the Miocene and Pliocene to include the origins of humans and their earliest ancestors. Prerequisite: ANTH 38630.

48820 Human Musculo-skeletal System (3)
A largely hands-on course introducing the study of human anatomy for students interested in biological anthropology and archaeology. Topics include skeletal and functional anatomy, biomechanics, and estimation of age and sex from isolated bones. Prerequisite: ANTH 38650.

48830 Human Behavioral Ecology and Evolution (3)
How “unique” is human behavior? Using an evolutionary perspective, we will explore the evolution of human mating systems and parental investment. Prerequisite: ANTH 18630 or 38630 or BSCI 30150 or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department. This course may be used to satisfy the university Diversity Requirement.

48835 Primate Ecology and Conservation (3)
Study of the geographic distribution and evolutionary ecology of prosimians, monkeys, and apes, and human and climatic effects on their long-term survival. Prerequisites: ANTH 18630 or 38630 or 38680 or BSCI 10120.

48840 Natural Selection in Perspective (3)
The course provides an in-depth introduction into the theory of natural selection by reading both Darwin’s original work and recent interpretations. Prerequisite: ANTH 18630 or 38630 or BSCI 10120 or permission.

ARCHITECTURE AND ENVIRONMENTAL DESIGN (ARCH)

10011 Survey of Architectural History I (3)
History of architecture from Neolithic times through the 14th century. Prerequisite: Not open to architecture majors. This course may be used to satisfy the LERs.

10012 Survey of Architectural History II (3)
History of Western architecture from the Renaissance to the early 20th century. Prerequisite: ARCH 10011; not for architecture majors. This course may be used to satisfy the LERs.

10013 Survey of Architectural History III (3)
The nature of the built environment, its forms and functions are explored within the cultural contexts of ecology, technology, human behavior, symbolism, art and history. Prerequisite: None. This course may be used to satisfy the LERs.

10101 First Year Design Studio I (3)
The introduction of a building design process that emphasizes the integration of program requirements with specific form topologies using line and plane as the primary elements to provide shape and space. Prerequisite: ARCH 10102. Special fee: $3.75/cr. hr.—subject to change.

10102 First Year Design Studio II (3)
The introduction of a building design process that emphasizes the integration of program requirements with form topologies that are both influenced and informed by specific site context. Line and plane and primary configurational shapes are again incorporated to develop building form solutions. Prerequisite: ARCH 20101. Special fee: $3.75/cr. hr.—subject to change.

20301 Introduction to Building Structures (3)
An introduction to building structures, statics, strength of materials, analysis for shear–moment–displacement, loads including dead–live–wind–earthquake and building code requirements for structural safety. Prerequisite: Architecture majors only. MATH 1 and II; PHY 13001 or PHY 13011.

20693 Workshop: Computer Applications (3)
(Repeated registration permissible) Computer workshops are intended to provide an exposure to various fundamental computer topics and their application to architectural studies. Topics include file management, network applications, spreadsheets, raster image manipulations, two- and three-dimensional CAD and computer-aided visualization. S/U grading. Prerequisite: Architecture and interior design majors only.

30001 Site Design (1)
Research component addressing technical, cultural and contextual concerns, influences and directions in site design. Prerequisite: ARCH 20102; corequisite: ARCH 30101. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

30002 Urban Design (1)
Lecture/seminar/research component conducted concurrently with ARCH 30102 addressing design of form and space in cities through study of precedents, traditions, current directions in urban form making. Prerequisite: ARCH 30001, 30101; corequisite: ARCH 30102.

30012 Urban Design, Florence, Italy (1)
Lecture/seminar/research component addressing design of form and space in cities through study of precedents, traditions, current directions in urban form making. Prerequisite: ARCH 30101; corequisite: ARCH 30112.
30101 Third Year Design Studio I (5)
Studio investigation of the simultaneous concerns of program, site, context and materials of construction. Specific emphasis on the understanding of the goals, objectives, intentions and parameters of urban design. Special fee: $1.50/cr. hr.; subject to change. Prerequisite: ARCH majors only. Approved admission to 3rd year. Corequisite: ARCH 30001.

30102 Third Year Design Studio II (5)
Studio investigation with specific emphasis on the understanding of the goals, objectives, intentions and parameters of urban design. Special fee: $1.50/cr. hr.; subject to change. Prerequisite: ARCH 30101; corequisite: ARCH 30002.

30112 Third Year Design Studio II—Florence, Italy (5)
Studio investigation with specific emphasis on understanding of the goals, objectives, intentions and parameters of urban design. Prerequisite: Approved admission to the architecture-Italy program. Corequisite: ARCH 30012.

30301 Structural Systems I (3)
A continuation of building structures, statics, strength of materials and systems analysis. Emphasis is on elastic materials, allowable stresses and design for wood and steel structural members and systems. Prerequisite: Approved admission to third year.

30401 Methods and Materials I (3)
Introduction to the origins, extraction, properties and processing of the basic materials of construction. Primary focus on wood and masonry—appropriate use and scale including code requirements, methods of construction and design consequences. Prerequisite: Approved admission to third year.

30501 Environmental Technology I (3)
Basic principles of ecological design and architecture environmental systems including lighting, sonic and thermal systems. Prerequisite: Approved admission to third year.

40002 Systems Design I (5)
Lecture and research component addressing comprehensive integration of mechanical, electrical, communications, structural, life safety systems and sustainable design concerns. Prerequisite: ARCH 40101; corequisite: ARCH 40102.

40101 Fourth Year Design Studio I (5)
Studio investigation of complex formal and spatial constructs addressing the comprehensive concerns of architecture. Special emphasis on understanding the conservation of the natural environment. CAD is required. Prerequisite: ARCH 30102 or 30112; corequisite: ARCH 40001. Special fee: $3/cr. hr.—subject to change.

40102 Fourth Year Design Studio II (5)
Studio investigation of the comprehensive concerns and understanding of building systems integration. CAD is required. Prerequisite: ARCH 40101; corequisite: ARCH 40002. Special fee: $3/cr. hr.—subject to change.

40302 Structural Systems II (3)
A continuation of building structures, statics, strength of materials and systems analysis. Emphasis is on inelastic materials, allowable stress and design for masonry and concrete structural members and systems. Prerequisite: ARCH 30301.

40402 Methods and Materials II (3)
Continued investigation of the origins, extraction, properties and processing of the basic materials of construction. Primary focus on concrete and steel—appropriate use and scale including code requirements, methods of construction and design consequences. Prerequisite: ARCH 30401.

40502 Environmental Technology II (3)
Ecological design of large buildings. The investigation and analysis of lighting, thermal, water, electrical and waste systems in urban settings. Prerequisite: ARCH 30501.

44611 Portfolio (1)
Architectural drawings and other allied work of the student reproduced and assembled in a professional portfolio suitable for job and graduate application. Prerequisite: ARCH 40101.

45001 Professional Practice: Real Estate and Development (3)
Introduction to the economic, social, ethical, legal impact on/of development in both the public and private sectors. Computer applications and case study analysis is required. Prerequisite: Admission to Bachelor of Architecture professional program.

45002 Professional Practice: Contract and Planning Law (3)
The course surveys laws relating to the practice of architecture and dispute resolution with emphasis on contract laws contrasted with laws of negligence and the standard of care in the profession. Planning law surveys land use control mechanisms as seen through zoning, variances and practical applications. Prerequisite: Admission to Bachelor of Architecture professional program.

45003 Professional Practice: Leadership and Ethics (3)
This course discusses leadership on several professional scales including architectural and urban, with emphasis on problem identification and problem solving within an ethical framework. Prerequisite: Admission to Bachelor of Architecture professional program.

45004 Professional Practice: Office and Financial Management (3)
The course examines various architectural office structures and management approaches, laws pertaining to professional registration and practice, the use of consulting engineers, and financial management of the architect’s office in the context of the profession as a business. Prerequisite: Admission to the Bachelor of Architecture professional program.

45093 Workshop: Professional Practice (1-3)
(Repeatable for a total of 3 credit hours) Variable topic workshop related to architectural professional practice. S/U grading. Prerequisite: Admission to Bachelor of Architecture professional program.

45101 Fifth Year Design Studio I (6)
The studio intends to investigate a new scale of environmental issues which integrate both architectural and urban planning. Included are site visits, data collection, design of a master plan and an architectural form response to a segment of the total conceptual plan. Prerequisite: Admission to the Bachelor of Architecture professional program. Special fee: $2.50/cr. hr.—subject to change.

45102 Fifth Year Design Studio II (3-6)
(Repeatable for a total of 6 credit hours) Advanced design studio emphasizing comprehensive and independent investigation—exploring and manifesting ideas through architecture using competitions and hypothetical or real projects as vehicles of expression. Prerequisite: Faculty permission required. Special fee: $2.00/cr. hr.—subject to change.

45201 History of Architecture I (3)
Architecture from prehistory through the European early Christian and Byzantine period, including Africa, India, Central and South America, Central Asia and the Far East. Prerequisite: Architecture major.
45202  History of Architecture II (3)
History of architecture from the European Romanesque period to early 20th century. Western and non-Western cultures including Africa, India, South America, Mexico, Japan. Prerequisite: None.

45203  History of Architecture III (3)
A history of 20th century architecture. Prerequisites: ARCH 45202.

45210  Renaissance Architecture (3)
History and theory of Renaissance architecture from 1400 until 1600. Prerequisites: ARCH 10011/10012 or ARCH 45201/45202, or ARTH 22006/22007.

45211  Baroque Architecture (3)
History and theory of architecture in Europe from 1600 through 1750. Prerequisites: ARCH 10011/10012 or ARCH 45201/45202, or ARTH 22006/22007.

45220  American Architecture: Colonial to 1900 (3)
History of American architecture for Spanish, French, Dutch and English colonization through the 19th century. Prerequisite: ARCH 10011/10012 or ARCH 45201/45202, or ARTH 22006/22007.

45230  Frank Lloyd Wright (3)
Examination of the life, buildings and literary works of Frank Lloyd Wright with emphasis on his contributions to American art and architecture and his place in American intellectual history. Prerequisite: ARTH 22007 or ARCH 45202.

45291  Seminar: Variable Topics in Architectural History (1-3)
(Repeatable for a total of 3 credit hours) Content varies. Prerequisite: Permission.

45391  Seminar: Structures III (1-3)
(Repeatable for a total of 3 credit hours) A continuation of building structures, statics, strength of materials, and systems analysis. Emphasis is on complex systems, including horizontal long span, and high-rise structures. Computer analysis is required. Prerequisite: ARCH 40502.

45491  Seminar: Methods and Materials III (1-3)
(Repeatable for a total of 3 credit hours) Advanced topics in methods and complex materials systems. Computer modeling and field experiences are required. Prerequisite: ARCH 40402.

45591  Seminar: Environmental Technology III (1-3)
(Repeatable for a total of 3 credit hours) Variable topics in environmental technology—environmental design and energy conservation, advanced lighting techniques, etc. Prerequisite: ARCH 40502.

45601  Advanced Computer Applications (1-3)
(Repeatable for a total of 3 credit hours) This course discusses advanced visualization techniques such as raytracing, radiosity and animation, and presents a variety of presentation issues and options. Prerequisite: Admission to third year.

45610  (Re)constructing Architecture (3)
The representation of race, gender and nationalistic ideologies within architectural practice and form. Prerequisite: Open to upper-level fine and professional arts design majors. This course may be used to satisfy the university Diversity Requirement.

45611  Design Theory and Criticism: Twentieth Century (1-3)
(Repeatable for a total of 3 credit hours) Design theory and criticism of architecture in the 20th century. Prerequisite: None.

45620  Introduction to Preservation (1-3)
(Repeatable for a total of 3 credit hours) An overview of preservation including building analysis, conservation, adaptive reuse, economic benefits of preservation planning as a revitalizing strategy. Prerequisite: Permission.

45621  Current Issues in Historic Preservation (1-3)
(Repeatable for a total of 3 credit hours) Course in which practicing professionals including architects, planners, developers and government officials present preservation-related work. Prerequisite: Permission.

45630  Introduction to Landscape Architecture (1-3)
(Repeatable for a total of 3 credit hours) Introduction to landscape design with emphasis upon the relationship between landscape and buildings. Prerequisite: None.

45631  Site Analysis and Design (1-3)
(Repeatable for a total of 3 credit hours) Analysis of environmental factors as a basis for site selection and site planning. Prerequisite: None.

45652  Urban Ecology (1-3)
(Repeatable for a total of 3 credit hours) Understanding the built environment as an integral component of an overall ecological system. Emphasis is on the need for a collaborative multidisciplined and community-based ecological design process, sustainable ethic and cultivating an awareness of nature in the city. Prerequisite: None.

45640  Developing Environments for Older Adults (1-3)
(Repeatable for a total of 3 credit hours) Research of existing built environments and an investigation of the planning design process for the elderly. Prerequisite: None.

45701  Urban Design Studio I (3-6)
(Repeatable for a total of 6 credit hours) Introduction to urban design and its relationship to other design disciplines through analysis of neighborhoods and definition of comprehensive area improvement programs. Prerequisite: Admission to Bachelor of Architecture professional program.

45702  Urban Design Studio II (3-6)
(Repeatable for a total of 6 credit hours) Urban design exploration of the formal relationships between buildings, open spaces and streets in the development of high density, mixed-use projects. Prerequisite: Admission to Bachelor of Architecture professional program.

45703  Theories and Principles of Urban Design I (1-3)
(Repeatable for a total of 3 credit hours) Course on the nature and utility of theory in urban design, examining the relationship between design ideologies and the theories of the environment on which they are based. Prerequisite: None.

45704  Theories and Principles of Urban Design II (1-3)
(Repeatable for a total of 3 credit hours) Course on the relationship between design ideologies/theories and the realities of existing spacial relationships/precedents. Prerequisite: Permission.

45705  Forces That Shape Cities (1-3)
(Repeatable for a total of 3 credits) The course examines the forces that have shaped urban form through history, how they impact our cities today and the challenges they will pose for the future. Prerequisite: None.

45706  Socio-Political Representation in Urban Design (1-3)
(Repeatable for a total of 3 credit hours) This course explores representation of socio-political ideas/ideology through architectural and urban design. Prerequisite: Permission.

*Courses offered only at Regional Campuses.*
45707 Representation in Design (1-3)  
(Repeatable for a total of 3 credit hours) Course on the nature of communication in design and the representational tools the designer uses to give form to abstract ideas and converse with clients and colleagues. Prerequisite: None.

45710 Design Methodology and Methods (1-3)  
(Repeatable for a total of 3 credit hours) Course on procedural theory in urban design, the nature of the design process and how its manipulation affects the quality and character of design products. Prerequisite: None.

45711 Case Studies in Urban Design (1-3)  
(Repeatable for a total of 3 credit hours) An in-depth evaluation of important examples of completed urban design projects, presented by key project participants. Prerequisite: None.

45793 Workshop: Urban Design and Planning (1-3)  
(Repeatable for a total of 3 credit hours) This course provides an introduction to the scope of planning and design in the making of quality urban neighborhoods, with a particular emphasis on the role of urban design, architecture and landscape design. S/U grading. Prerequisite: None.

46263 Modern Architecture (3)  
History and theory of architecture from the Chicago School through World War II. Prerequisites: ARCH 45201 and 45202; or 10011 and 10012; or ARTH 22006 and 22007.

46911 Seminar: Variable Title Workshop in Art (1-6)  
(Repeatable for a total of 18 hours) S/U grading. Prerequisite: Permission.

46976 Individual Investigation (1-3)  
(Repeatable for a total of 3 credit hours) Individual investigation. Prerequisite: Permission; prior written agreement with faculty is required.

ART (ART)  
41069 Variable Title Workshop in Art (1-6)  
(Repeatable for a total of 18 hours) S/U grading. Prerequisite: Permission.

ART CRAFTS (ARTC)  
25300 Textile Arts: Pattern (3)  
An introduction to the concepts and processes of constructed pattern including printing, netting and weaving. Off-loom and floor loom explorations will emphasize the relationship of form and structure in textile art. An emphasis is placed on the use of non-traditional or experimental materials. Required for all craft majors. Prerequisite: None. Special fee: $23/hr. —subject to change.

25301 Fiber Arts: Screen and Block Printing (3)  
Exploration and development of fabric printing and dyeing including mono printing and screen printing with emphasis on design and developing studio competency in medium as art form. Prerequisites: ARTF 14060 and 24040 or permission. Special fee: $18/hr. —subject to change.

25302 Textile Arts: Felting (3)  
An opportunity for the in-depth exploration of technical and aesthetic possibilities of this unique process. Layers and textures in two dimensions and processes for three dimensional feltmaking are introduced and considered as an expressive vocabulary. Dyeing of wool fleece plays a major role in the course. Prerequisites: ARTF 14002 and 14060 or permission. Special fee: $18/hr. —subject to change.

25303 Textile Arts: Tapestry (3)  
An introduction to a variety of traditional pictorial tapestry/wall techniques to be executed on the frame loom and/or floor loom. Both tapestry and carpet history are presented to reveal traditional processes, patterns and images for inspiration in the creation of individual works. Dyeing will play a major role in the exploration. Prerequisites: ARTF 14022 and 14060 or permission. Special fee: $17/hr. —subject to change.

25304 Textile Arts: Pictorial Weaving (3)  
An introduction to floor loom weaving processes that facilitate the development of non-repetitive patterns and images. Techniques such as warp painting, supplementary weft and pick-up double weave will be explored as means of creating pictorial art cloth. Textile history will be presented as an important resource for the development of woven studies and individually conceived projects. Prerequisites: ARTF 14022 and 14060 or permission. Special fee: $16/hr. —subject to change.

25305 Textile Arts: Design and Production (3)  
A basic introduction to the mechanics of designing and constructing patterned and dyed cloth on the floor loom. Learning to use the computer for the designing of woven pattern is an expectation of the course. (This is an excellent course for designers of fashion and interiors, as well as anyone interested in the design and craft of weaving.) Prerequisites: ARTF 14022 and 14060 or permission. Special fee: $18/hr. —subject to change.

25306 Textile Arts: Dimensional (3)  
An introduction to the development of unique sculptural objects in textile media. Students will explore three dimensional textile processes using the floor loom and the construction method of wrapping and coiling. Prerequisite: ARTF 14022. Special fee: $17/hr. —subject to change.

25400 Ceramics II (3)  
Continuation of ARTC 25400 emphasizing design, use of potters' wheel and chemistry of glazes. Prerequisite: ARTC 25400 or permission. Special fee: $23/hr. —subject to change.
35600 Glass Blowing (3)
Further exploration of glass blowing techniques. Design, form, color and execution will be emphasized. Prerequisite: ARTC 25600 or permission. Special fee: $40/cr. hr.—subject to change.

35700 Jewelry/Metals II (3)
Further develops technical skill, historical knowledge, and expressive capacity of metal-smithing and jewelry. Prerequisite: ARTC 25700 or permission. Special fee: $25/cr. hr.—subject to change.

45008 Professional Practices Crafts (3)
An introduction to the concerns and practices of the professional artist/craftsperson. Prerequisite: Senior standing in crafts. Special fees: $18/cr. hr.—subject to change. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

45095 Crafts: Selected Topics (3)
Specialized courses in crafts that focus on specific techniques and media. Prerequisite: Junior standing or permission. Special fee: $15/cr. hr.—subject to change.

45096 Individual Study: Crafts (1-6)
(Repeatable for a total of 12 hours) Additional study and/or special topics in ceramics, enameling, glass, jewelry/metal or fiber arts. IP grade permissible. Prerequisite: Permission. Special fee: $15/cr. hr.—subject to change.

45099 Senior Project: Crafts (4)
Indepedently conceived project in crafts submajor. Includes completion of undergraduate thesis, review presentation documentation (slide form), exhibition and faculty review. Letter grades and IP permissible. Prerequisite: Senior standing in crafts. Special fee: $18/cr. hr.—subject to change. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

45301 Textile Arts: Advanced Studio (3)
(Repeatable for a total of 6 hours) Structured time for individual investigations in textiles. Emphasis on self-designed study. Biweekly presentations of contemporary work in textiles and weekly discussions or critiques with open studio. IP grade permissible. Prerequisite: Senior standing in crafts. Special fee: $15/cr. hr.—subject to change.

45400 Advanced Ceramics (2-6)
(Repeatable for a total of 40 hours) Individual problems in ceramics. Prerequisite: ARTC 35400 or permission. Special fee: $24/cr. hr.—subject to change.

45500 Advanced Enameling (2-6)
(Repeatable for a total of 30 hours) Advanced study in enameling allows students to work in depth with media. Prerequisite: ART 35500 or permission. Special fee: $11/cr. hr.—subject to change.

45600 Advanced Glass Working (2-6)
(Repeatable for a total of 40 hours) Individual exploration of sculptural and hot glass techniques. Design, form, content and execution strongly emphasized. Introduction to studio facility design, construction, and maintenance. Prerequisite: ARTC 35600 or permission. Special fee: $40/cr. hr.—subject to change.

45701 Advanced Jewelry/Metals I (3)
Advanced technical and artistic exploration in jewelry and metalsmithing. First of four courses at this level. Prerequisite: ARTC 35700 or permission. Special fee: $28/cr. hr.—subject to change.

45702 Advanced Jewelry/Metals II (3)
Advanced technical and artistic exploration in jewelry and metalsmithing. Second of four courses at this level. Prerequisite: ARTC 35700 or permission. Special fee: $28/cr. hr.—subject to change.

45703 Advanced Jewelry/Metals III (3)
Advanced technical and artistic exploration in jewelry and metalsmithing. Third of four courses at this level. Prerequisite: ARTC 35700 or permission. Special fee: $28/cr. hr.—subject to change.

45704 Advanced Jewelry/Metals IV (3)
Advanced technical and artistic exploration in jewelry and metalsmithing. Fourth of four courses at this level. Prerequisite: ARTC 35700 or permission. Special fee: $28/cr. hr.—subject to change.

ART EDUCATION (ARTE)

31001 Art Education: Foundations and Concepts (3)
An introduction to art education concepts. Emphasis on child development and on teaching the expressive and responsive dimensions of art in the early grades. Eleven field/clinical hours are associated with this course. Prerequisite: 2.75 GPA and sophomore standing in art education, or admission to professional education or permission. Special fee: $3.33/cr. hr.—subject to change.

31004 Art Education: Teaching Practicum (3)
A teaching experience for applying art education concepts. Analysis of instructional problems emphasized. Fifty-four field and/or clinical hours are associated with this course. Prerequisite: 2.75 GPA; ARTE 31001.

31005 Art Education Special Topics (2-4)
Special topics (experimental course). IP grade permissible. Prerequisite: Permission of instructor.

31096 Individual Study—Art Education (2-10)
Additional study in areas of a student’s choice in consultation with advisor. IP grade permissible. Prerequisite: Permission.

41002 Art Education: Methods and Materials (3)
An examination of relationships between content, materials and strategies for teaching art. Seven field and/or clinical hours are associated with this course. Prerequisites: 2.75 GPA; ARTE 31004.

41003 Art Education: Field Experiences (3)
(Repeatable for a total of 8 hours) A planning and teaching experience for teaching art in various settings; analysis of classroom situations emphasized. Fifty-four field and/or clinical hours are associated with this course. Prerequisites: 2.75 GPA; ARTE 31004. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

41009 Art Education Major Review (1)
Examination of student’s knowledge, proficiency and ability to apply concepts in art and art education. S/U grading and IP. Prerequisites: 2.75 GPA, and pre- or corequisite: ARTE 41002 and 41003.

41096 Individual Study—Art Education (2-10)
Additional study in areas of students’ choice in consultation with advisor. IP grade permissible. Prerequisite: Permission.

41525 Art Education: Inquiry into Professional Practice (3)
Concepts and practices related to teaching art. Inquiry into art teaching as a professional practice. Emphasis is on teacher as critical, disciplined investigator. Twenty-six field and/or clinical hours are associated with this course. Prerequisite: 2.75 GPA and ARTE 41009 or permission.

41557 Art Education: Student Teaching and Seminar (9)
Provides a 10-week student teaching experience and associated seminar. S/U grading and IP permissible. See Student Teaching section in Catalog. Prerequisite: ARTE 41525 and eligibility for admission to student teaching; 2.75 GPA.

ART FINE ARTS (ARTF)

14000 Drawing I (3)
Fundamental drawing and studio experiences; exploration of basic drawing ideas and media. Prerequisite: None. Special fee: $8/cr. hr.—subject to change.

14001 Drawing II (3)
Continued practice in drawing with particular emphasis upon dimensional representation and pictorial structure. Prerequisite: ARTF 14000. Special fee: $5/cr. hr.—subject to change.
ARTF

14022 2D Composition (3)  
Basic introduction in flat pictorial composition for the studio or craft artist. Prerequisite: None. Special fee: $10/cr. hr.—subject to change.

14055 Sculpture I (3)  
An introduction to the basic concepts of three-dimensional form. Prerequisite: None. Special fee: $15/cr. hr.—subject to change.

14060 Painting I (3)  
Opaque, water-based media used to introduce fundamental form language and vocabulary of painting. Emphasis upon structured study and effective use of colors. Prerequisites: ARTF 14000 or permission. Special fee: $7/cr. hr.—subject to change.

24001 Drawing III (3)  
Emphasis on continued development of drawing with focus on nonfigurative representations of pictorial space. Prerequisite: ARTF 14001. Special fee: $5/cr. hr.—subject to change.

24005 Sophomore Review: Fine Arts (1)  
Diagnostic review by fine arts faculty of portfolio of work selected from "foundation" courses. Student's knowledge of art history is also examined. Student must receive a passing score (above average of C) to continue in degree program. Action by faculty committee may include the assignment of additional study work over the normal graduation requirements in areas of apparent deficiencies. S/U grades and IP. Prerequisite: ART 24020.

24040 Printmaking I (3)  
Basic traditional and contemporary techniques of relief (woodcut, lino-cut, etc.) and intaglio printing (etching, engraving, collagraph, etc.). Prerequisite: ARTF 14000. Special fee: $14/cr. hr.—subject to change.

24045 Sculpture II (3)  
Continuation of Sculpture I with greater emphasis on materials and processes. Prerequisite: ARTF 14055. Special fee: $15/cr. hr.—subject to change.

24060 Painting II (3)  
Continuation of work begun in Painting I. Introduction to oil painting with emphasis upon direct painting from observed sources and study of expressive capabilities of painting. Prerequisite: ARTF 14060. Special fee: $8/cr. hr.—subject to change.

34001 Drawing IV (3)  
Further study and understanding of concepts and ideas which enable the student to understand and professionally realize their drawings. Prerequisite: ARTF 24001. Special fee: $5/cr. hr.—subject to change.

34040 Printmaking: Intermediate Intaglio (3)  
Continuation of ARTF 24040 emphasizing individually assigned problems in intaglio with introduction to color intaglio techniques. Prerequisite: ARTF 24040. Special fee: $13/cr. hr.—subject to change.

34041 Serigraphy I (3)  
The initial presentation of fundamental concepts and processes pertaining to serigraphy. This course will include printing techniques and aesthetic considerations in the making of art. Prerequisite: ARTF 24040 or permission. Special fee: $11/cr. hr.—subject to change.

34042 Lithography I (3)  
Introduction to stone lithography. Techniques of drawing and printing crayon, tusche, transfer and color images and their relation to problems of drawing and composition. Prerequisite: ARTF 24040 or permission. Special fee: $14/cr. hr.—subject to change.

34045 Lithography II (3)  
Continuation of ARTF 24042 emphasizing individually assigned problems in intaglio with introduction to color intaglio techniques. Prerequisite: ARTF 34042 with emphasis on individually assigned projects and printing of editions. Experiments in color lithography, plate and photolithography. Prerequisite: ARTF 34042. Special fee: $10/cr. hr.—subject to change.

34050 Sculpture: Life Modeling (3)  
Continuation of the study of the human figure in sculpture. Prerequisite: ARTF 24055. Special fee: $12/cr. hr.—subject to change.

34055 Sculpture III (3)  
A sculpture course with an emphasis on other conceptual approaches beyond the more formal and aesthetic considerations explored in Sculpture II. Prerequisites: ARTF 24055 and 24050. Special fee: $12/cr. hr.—subject to change.

34060 Painting III (3)  
Continuation of the painting experience, in various media, using formal means of painting expressively. Prerequisite: ARTF 24060. Special fee: $9/cr. hr.—subject to change.

44000 Fine Art Photography: Issues and Techniques (3)  
Lecture/studio course that addresses the conjoining of photography with painting, sculpture and printmaking. Prerequisites: ARTF 34010 and any 40000-level fine art studio. Special fee: $11/cr. hr.—subject to change.

44003 Drawing V (3)  
Continuation of ARTF 34001. Prerequisite: ARTF 34001. Special fee: $5/cr. hr.—subject to change.

44040 Printmaking: Advanced Intaglio (3)  
(Repeatable for 9 hours.) Continuation of ARTF 34040 with special emphasis on color and photographic techniques intaglio. Prerequisite: ARTF 34040. Special fee: $10/cr. hr.—subject to change.

44041 Serigraphy II (3)  
(Repeatable for a total of 9 hours) Continuation of ARTF 34041 emphasizing individually assigned projects. Prerequisite: ARTF 54041. Special fee: $8/cr. hr.—subject to change.

44042 Lithography II (3)  
(Repeatable for a total of 9 hours) Continuation of ARTF 34042 with emphasis on individually assigned projects and printing of editions. Experiments in color lithography, plate and photolithography. Prerequisite: ARTF 34042. Special fee: $10/cr. hr.—subject to change.

44050 Sculpture: Life Modeling (3)  
(Repeatable for a total of 15 hours) To continue developing the ability to see and understand the figure in sculptural terms, continued study of proportion, balance, movement, and composition studies from live models and real objects. Prerequisite: ARTF 34050. Special fee: $10/cr. hr.—subject to change.

44055 Sculpture IV (3)  
(Repeatable for a total of 9 credit hours) Advanced sculpture course, with emphasis on students pursuing individually conceived problems in close consultation with faculty. Written proposal by students required at registration. Prerequisite: ARTF 34055. Special fee: $15/cr. hr.—subject to change.

44060 Painting IV (3)  
(Repeatable for a total of 9 credit hours) Advanced painting course with emphasis on students pursuing individually conceived problems in close consultation with faculty. Written proposal by students required at registration. Prerequisite: ARTF 34060. Special fee: $8/cr. hr.—subject to change.

44095 Selected Topics: Fine Arts (1-8)  
Special problems in studio art. Discussion, lecture and studio research in various selected media and concepts. Content varies each semester offered. Prerequisite: Junior standing in art or permission. Special fee: $8/cr. hr.—subject to change.

44099 Senior Project: Fine Arts (3)  
Independently conceived project by senior fine art major, including written proposal and undergraduate thesis, culminating in an exhibition and review. Letter grades and IP. Prerequisites: Senior standing and permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.
ART HISTORY (ARTH)

12001 Art Survey (3)
An introduction to the history of art emphasizing analysis and interpretation of visual art forms. The course will also focus on the functions and meaning of Western and non-Western art traditions. No credit for art majors. Prerequisite: None. This course may be used to satisfy the LERs.

22006 Art History I: Ancient and Medieval Art (3)
Examination and interpretation of the major monuments of Western art and architecture from Paleolithic art to late Gothic art. The impact of non-Western traditions will be included as appropriate. Prerequisite: None. This course may be used to satisfy the LERs.

22007 Art History II: Renaissance to Modern Art (3)
Major movements and artists in painting, sculpture and allied arts in Europe and America from early Renaissance in Italy until the present day. The impact of non-Western traditions will be included as appropriate. Prerequisite: None. This course may be used to satisfy the LERs.

22020 Art of Africa, Oceania, and the Americas (3)
Stylistic and historical investigation of the art and architecture of the traditional societies of Africa, Oceania and the Americas within an art historical and cross-cultural perspective. Prerequisite: None. This course may be used to satisfy the LERs and the university Diversity Requirement.

22031 Greek Art and Archaeology (3)
(Cross-listed with CLAS 41401) Greek art and architecture from earliest times through Hellenistic period with special attention given to recent archaeological discoveries. Prerequisite: Junior or senior standing.

22032 Roman Art and Archaeology (3)
(Cross-listed with CLAS 41402) Introduction to archaeology of Roman world. Emphasis on discoveries and impact on study of Italic, Etruscan and Roman art, architecture and sculpture through Imperial period. Prerequisite: Junior or senior standing.

22036 Medieval Art (3)
Emphasis on major period of Medieval art (Byzantine, Carolingian, Ottonian, Romanesque and Gothic), treating iconographic themes and styles in a variety of media. Prerequisite: Junior or senior standing.

22039 Gothic Art, 12th to 15th Centuries (3)
An examination of the development of European Gothic art from the 12th century to the 15th century. Emphasis on the ties to contemporary philosophical and literary developments. Prerequisite: Art History (ARTH 22006/7) or permission.

24000 Research and Writing in Art History (2)
Introductions to the basic techniques and resources for art history research. Provides assistance in the preparation of research papers and critical essays required by upper-division art history courses. Prerequisite: Junior or senior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

24021 Arts of India and Southeast Asia (3)
Examination of sources and styles of Indian and Southeast Asian art from prehistoric to modern. Prerequisite: Sophomore, junior or senior standing.

24022 The Arts of China (3)
Examination of sources and styles of Chinese art from prehistoric to recent times. Prerequisite: Junior or senior standing.

24023 The Arts of Japan (3)
Examination of sources and styles of Japanese art from prehistoric to recent times. Prerequisite: Junior or senior standing.

24025 Art of West Africa (3)
Arts, crafts and architecture of the Western Sudanic and Guinea Coast areas of West Africa from prehistoric times to the present. Prerequisite: Junior or senior standing. This course may be used to satisfy the university Diversity Requirement.

24026 Art of Nigeria (3)
Study of the arts, crafts and architecture of Nigeria from prehistoric times to the present. Prerequisite: Junior or senior standing. This course may be used to satisfy the university Diversity Requirement.

24027 Art of Central Africa (3)
Comparative study of the arts, crafts and architecture of Central Africa from prehistoric times to the present. Prerequisite: Junior or senior standing. This course may be used to satisfy the university Diversity Requirement.

24031 Greek Art and Archaeology (3)
(Cross-listed with CLAS 41401) Greek art and architecture from earliest times through Hellenistic period with special attention given to recent archaeological discoveries. Prerequisite: Junior or senior standing.

24032 Roman Art and Archaeology (3)
(Cross-listed with CLAS 41402) Introduction to archaeology of Roman world. Emphasis on discoveries and impact on study of Italic, Etruscan and Roman art, architecture and sculpture through Imperial period. Prerequisite: Junior or senior standing.

24036 Medieval Art (3)
Emphasis on major period of Medieval art (Byzantine, Carolingian, Ottonian, Romanesque and Gothic), treating iconographic themes and styles in a variety of media. Prerequisite: Junior or senior standing.

24039 Gothic Art, 12th to 15th Centuries (3)
An examination of the development of European Gothic art from the 12th century to the 15th century. Emphasis on the ties to contemporary philosophical and literary developments. Prerequisite: Art History (ARTH 22006/7) or permission.

24041 Italian Renaissance Art (3)
Study of development of major themes in Italian art from 1400 until c. 1550, emphasizing achievements of the masters and analyzing major ideas and theories of the period. Prerequisite: Junior or senior standing.

24042 Northern Renaissance Art (3)
Study of stylistic and iconographic questions and technique in Northern panel painting, as well as other arts in Northern Europe. Prerequisite: Junior or senior standing.

24046 Baroque Art of the 17th Century (3)
Study of the origins of Baroque art in Italy and its spread throughout Flanders, the Netherlands, France and Spain. Prerequisite: Junior or senior standing.

24047 Rococo Art in the 18th Century (3)
Study of 18th-century art in France and subsequent spread and development throughout continental Europe. Prerequisite: Junior or senior standing.

24051 European Art and Ideas: 1750-1900 (3)
Selected studies in late 18th-century and 19th-century British, French, German and Spanish art and architecture within the broader context of Western cultural and ideas. Prerequisite: Junior or senior standing.

24056 American Art: 1607-1860 (3)
Intensive survey of the major forms of art, styles, personalities, patrons, institutions and aesthetic theories in the United States from its beginning to the Civil War. Prerequisite: Junior or senior standing.

24057 American Art and Architecture: 1860-1940 (3)
In-depth study of American painting, sculpture, graphic art, architecture and allied arts from the Civil War to 1940. Prerequisite: Junior or senior standing.

24058 American Film, Photography, Art and Ideas (3)
Key examples from colonial through postmodern American photography, film, video, fine and graphic arts examined within the broader context of Western cultural and intellectual history. Prerequisite: None.

24061 Early 20th-Century Art (3)
Study of painting, sculpture, architecture and allied arts in Europe from 1880 to 1940. Prerequisite: ARTH 22007.

24066 Late Modern Art Since 1940 (3)
Painting, sculpture and allied arts in the United States and Europe from 1940 to the present. Prerequisite: ARTH 22007.

24070 History of Graphic Design (3)
Traces the arts of visual communication from their origins to current trends and practices with an emphasis on theory and aesthetics. Prerequisite: Junior standing.

24071 History of Prints (3)
Chronological survey of printmaking (engraving, etching, lithography, etc.) from 1400 to the present, emphasizing its technical and stylistic evolution. Prerequisite: Junior or senior standing.
**ARTS AND SCIENCES (A&S)**

**Interdisciplinary Courses**

The following courses are offered in support of nondepartmental inter- 
disciplinary programs sponsored by the College of Arts and Sciences and con-
stitute a portion of the curricular requirements of those programs.

42072 **Introduction to Museology (3)**

Art history course providing insights into the history of collecting, growth of museums, and the scope of the museum field and specialized professional areas involved. Prerequisites: ARTH 12001 for nonart majors; ARTH 22006 and 22007 or permission for art majors.

42075 **Film and Photography in Western Art and Ideas (3)**

Selected studies on film and photography within the broader context of Western realism and ideas. ARTH 12001, 22007 or 42051 recommended. Prerequisite: Junior or senior standing.

42078 **History of the Decorative and Applied Arts (3)**

Historical and critical examination of decorative and applied arts and their relationship to the Western societies which produced them. Prerequisites: ARTH 22006, 22007 or permission.

42091 **Art History Seminar (3)**

Open format course with topics announced in advance. Designed to allow detailed examination of selected topics. Prerequisites: Junior standing and permission of instructor.

42092 **Art Museum Internship (3)**

A supervised internship in a regional art museum emphasizing the practical application of museological principles and practices. Prerequisites: Junior or senior standing and ARTH 42072.

42096 **Special Topics: Art History (1-3)**

Upper-division discussion and lecture course whose content changes in accordance with the interest and competence of faculty. Precise title to be inserted in Schedule of Classes. Prerequisites: Junior or senior standing or permission.

42096 **Individual Investigation: Art History (3)**

Directed independent study with art history faculty. IP grade permissible. Prerequisite: Junior or senior standing or permission.

11001 **Foundations of Modern Thought I (4)*

First-semester course in which students learn eight ideas fundamental to contemporary thought through a wide variety of materials from social science, science and humanities. Offered at the Regional Campuses only. Prerequisite: None.

11002 **Foundations of Modern Thought II (4)*

The second course in which students learn eight ideas fundamental to contemporary thought through a wide variety of materials from social science, science and humanities. Offered at the Regional Campuses only. Prerequisite: A&S 11001.

22001 **Introduction to Jewish Studies (3)**

Introductory examination of issues of Jewish life, culture, religion and society from antiquity to the present. Prerequisite: None.

22002 **Introduction to Lesbian, Gay, Bisexual and Transgendered Studies (03)**

An introductory examination of lesbian, gay, bisexual and transgender issues from an interdisciplinary perspective. Prerequisite: None.

30196 **Individual Investigation (1-3)**

(Repeated registration permissible) Registration requires prior approval from the College of Arts and Sciences office. Prerequisite: Permission.

30891 **Introductory Seminar in Comparative Literature (4)**

A seminar presenting a variety of methods and critical approaches of comparative literature through study of selected texts and critics from several national literatures. Prerequisites: Completion of freshman English sequence and the college requirement in a foreign language.

40197 **Russian Area Studies Colloquium (3)**

Interdisciplinary investigation of selected basic problems in 19th- and 20th-century Russia and the U.S.S.R. Prerequisites: Senior standing; knowledge of Russian language or permission.

40887 **Colloquium in Comparative Literature (4)**

Comparative study of major themes, types, authors or movements across historical, cultural and disciplinary boundaries. Prerequisites: Completion of college English sequence and at least one prior literature course.

Requests for the scheduling of these courses are made by faculty members or students to the sponsoring department or to the dean. The departments concerned clear the proposed course with the Curriculum Committee of the college.

**ATHEletic Training (ATTR)**

**15011 Introduction to Clinical Athletic Training (2)**

Basic concepts and skills related to the professional domains of the athletic training profession. ARC certification in first aid and CPR and overview of career opportunities are included. Prerequisite: Enrollment in preprofessional phase of athletic training program.

**15092 Practicum in Athletic Training I (2)**

The study and clinical application of the Competencies in Athletic Training Educational domains. Specific emphasis on the introductory cognitive, psychomotor and affective components. Clinical hours and completion of specific competencies are required. IP permissible. Prerequisite: Permission.

**25036 Principles of Athletic Training (3)**

Principles of the profession, including injury prevention, basic sports trauma, injury management, and specific sports conditions. Practical competency in emergency care and first aid; athletic taping, wrapping and bracing; and equipment fitting. Prerequisite: None.

**25037 Physical Assessment Techniques (4)**

Anatomical and clinical assessment techniques for injuries and illnesses common to the physically active. Emphasis on orthopedic assessment strategies of the upper and lower quarters and spine for proper referral and care. Prerequisite: ATTR 25036 and PEP 25051.
25092 Practicum in Athletic Training II (2)
The study and clinical application of the Competencies in Athletic Training Educational domains. Specific emphasis on the intermediate cognitive, psychomotor and affective components. Clinical hours and completion of specific competencies are required. IP permissible. Prerequisite: ATTR 15092. Pre- or corequisite: ATTR 25036 or permission.

35025 Essentials of Athletic Injury Management (1)
Common injuries related to physical activity and/or athletic participation from the cause, management and care perspectives. American Red Cross sport safety training certification (including adult/child CPR) will be granted. Emphasis on application of skills. Prerequisite: None.

35037 Advanced Physical Assessment Techniques (3)
Anatomical, medical and clinical assessment techniques for injuries and illnesses common to the physically active. Emphasis on neurological and nonneurologic assessment strategies for proper referral and care. Prerequisite:ATTR 25037.

35039 Therapeutic Modalities (3)
The study and practical application of physical modalities including physical principles, physiologic effects, indications/contraindications and standard application procedures. Safety and legal issues of modality usage also addressed. Prerequisite: ATTR 25036.

25092 Practicum in Athletic Training III (2)
The study and clinical application of the Competencies in Athletic Training Educational domains. Specific emphasis on the advanced cognitive, psychomotor and affective components. Clinical hours and completion of specific competencies are required. IP permissible. Prerequisite: ATTR 25092 and permission.

45017 Professional Development in Athletic Training (3)
An investigation of the issues affecting the student athletic trainer as they prepare for an entry-level career in athletic training. Professional development issues and NATA/BOC exam preparation are included. Prerequisite: Senior standing; athletic training majors only.

45038 Organization and Administration of Athletic Training (3)
Investigation into current philosophies and legal aspects of athletic training. Organization and administration of all aspects of athletic training programs. Prerequisite: ATTR 25036.

45039 Therapeutic Rehabilitation (4)
The study and clinical application of rehabilitation techniques including strategies for proper exercise selection based on anatomical and physiological considerations, program administration and guidelines for program progression. Prerequisite: ATTR 25036 and PEP 25051.

45040 Pathology and Pharmacology for Allied Health Care Providers (2)
Investigation of specific pathological conditions presented by professionals including physicians and pharmacists. Will discuss common pathologies, associated pharmacologic treatment and physiologic effects for various afflications. Prerequisite: Senior standing and permission.

45192 Practicum in Athletic Training IV (2)
The study and application of the competencies in athletic training domains. Specific emphasis on the advanced and professional development competencies (cognitive, affective and psychomotor) in athletic training. Clinical hours and completion of specific competencies are required. Prerequisite: ATTR 35092.

45292 Internship in Athletic Training (4)
(Repeatable once for a total of 8 hours) Internship in approved athletic training setting under the direct supervision of a certified athletic trainer. Sixty clock hours required for each credit hour. IP permissible. Prerequisite: ATTR 15092, 25092, 35092, 45192 and permission.

AUTOMOTIVE ENGINEERING TECHNOLOGY (AUTT)*

12000 Introduction to Automotive Technology (4)
Overview of basic concepts. Systems and components are explored in a lecture/lab format. Students will learn the basic service and repair skills needed to enter a technical automotive curriculum. Individuals with automotive experience are permitted to take alternative coursework. Prerequisite: None.

12010 Engine Fundamentals and Repair (4)
In-depth study of the Otto-Cycle Engine design, mechanical components, inspection and overhaul, troubleshooting and performance testing, exploration of diesel and other alternatives. Prerequisite: None.

12011 Fuel and Exhaust Systems (4)
A study of fuel and exhaust systems. Both carburetors and fuel injection will be covered. Operating principles will be stressed. Prerequisite: AUTT 12020.

12012 Heating and Air Conditioning Systems (4)
Study of engine cooling and vehicle heating and air conditioning systems. Operating principles, design considerations, diagnostic techniques and repair procedures are addressed. Prerequisite: AUTT 12020.

12020 Auto Electrical Systems I (4)
The electron theory, circuit analysis, meter usage, batteries, circuit protection and lighting are covered. Emphasis is placed on understanding concepts so that they can be applied to electrical systems in subsequent courses. Prerequisite: None.

12021 Auto Electrical Systems II (4)
A study of relays, solenoids, electrical heating, various motors and their automotive applications, and charging systems with an emphasis placed on failure diagnosis. Prerequisite: AUTT 12020.

12030 Automotive Brake Systems (4)
Study of operating principles, design, construction, diagnosis and repair of service and parking brake systems. Various power assist and antilock units are covered. Prerequisite: None.

22011 Engine Performance and Emission Controls (4)
A study of the use of oscilloscopes and infrared exhaust gas analyzers as diagnostic tools. Also alternative ignition systems, alternative fuels and emission control systems. Prerequisite: AUTT 12011 and 12021.

22020 Electrical and Vacuum Systems (4)
A study of computerized control of automotive systems such as ignition timing, carburetor circuits and fuel injection. Prerequisite: AUTT 12020.

22030 Differentials and Manual Transmissions (4)
Study of the operating principles, design, construction, diagnosis and repair of manual transmissions, clutches, propeller shafts, differentials and axle assemblies. Prerequisite: None.

22031 Suspension and Steering Systems (5)
Front and rear suspension systems design, construction, repair and alignment are addressed. Tires, wheel balance and steering systems are covered. Prerequisite: None.

22032 Automatic Transmissions/Transaxles (4)
Operating principles, design considerations, construction, diagnosis and repair are covered. Prerequisite: AUTT 22030.

22095 Special Topics (1-5)
In-depth study of developments in the automotive field. Prerequisite: Permission of instructor.

BIOLOGICAL SCIENCES (BSCI)

NOTE: Students planning on majoring or minoring in the biological sciences in the College of Arts and Sciences or the College of Education, Health and Human Services must enroll in BSCI.

*Courses offered only at Regional Campuses.
Course Descriptions

10110 and 10120. Nonmajors should enroll in BSCI 10001 and 10002 series OR in courses specifically designated in the students’ program of study. Lower-division biological sciences courses with a third digit of zero (i.e. 10001, 10002, 20001, 20002, 20020 and 20021) are not accepted for credit in any biological sciences major or minor. Credit toward any biological sciences major or minor will not be permitted for a mixture of courses from the major series (10110 and 10120) and the nonmajor series (10001, 10002, 20001, 20002, 20020 and 20021). Some upper-division biological sciences courses with a third digit of zero (i.e. 30000, 30030, 30050 and 40020) are accepted for ELECTIVE credit only in a biological sciences major or minor. Students should verify acceptability of one of these courses prior to enrollment. A total of not more than 6 hours of any combination of BSCI 40099, 40191, 40192, 40193 or 40196 may be used toward fulfillment of the elective options and of these no more than 4 hours may be S/U graded.

10001 | Human Biology (3)
Study of the scientific method and life’s properties, emphasizing human biology. Topics include energy, genetics, reproduction, development, disease, nutrition and physical fitness in humans. Prerequisite: None. This course may be used to satisfy the LERs.

10002 | Ecology: Evolution and Society (3)
The major ecological and evolutionary forces that determine the life history characteristics of plants and animals including humans. Three 1-hour lectures/demonstrations per week. Prerequisite: None. This course may be used to satisfy the LERs.

10010 | Lake Erie Environmental Science (3)*
Principles and concepts of aquatic sciences and their relationship and application to marine business ventures in the Great Lakes region. Prerequisite: None.

10110 | Biological Diversity (4)
Considered first course in biology majors’ sequence. Examines the biodiversity of life from its origins to present-day microbes, plants and animals; their behavior, ecology and reproduction. Three hours lecture and 3 hours lab weekly. Field trips. Prerequisite: None. Special fee: $4/cr. hr.—subject to change.

10120 | Biological Foundations (4) *
Considered second course in biology majors’ sequence. Examines organization of life from subcellular biochemistry and molecular biology to genetics, bioenergetics and system homeostasis. Three hours lecture, 3 hours lab weekly. Field trips. Prerequisite: None. Special fee: $2/cr. hr.—subject to change.

11000 | Principles of Anatomy for Radiologic Technology (4) *
Introductory human anatomy for radiologic technology students emphasizing the concepts of both functional and regional anatomy to clinical practices and procedures. Lecture 3 hours weekly, lab 2 hours weekly. Offered only on the Salem Campus. Prerequisite: Admission to the radiologic technology program; corequisite: RADT 14020.

11001 | Anatomy for Physical and Occupational Therapy (5) *
This course covers the organization of the human body with emphasis on the structure and function of the neuro-musculo-skeletal systems. Prerequisite: None.

16001 | Horticultural Botany (3)*
To provide students with an understanding of the basic anatomy and physiology and growth characteristics of plants. Lecture 2 hours weekly, lab 3 hours weekly; offered only at the Geauga and Salem campuses. Prerequisite: None.

20001 | Zoological Foundations of Medicine (4)
General zoology, including elements of human and mammalian physiology, anatomy and histology. Lecture 2 hours, laboratory 4 hours weekly. Prerequisite: Controlled registration (required of first-year students in Phase I of NEOUCOM’s combined B.S./M.D. program).

20020 | Biological Structure and Function (5)
Basic design of human systems emphasizing the physiochemical and cellular bases of organ-system structure, function and development. Lecture 4 hours, laboratory 3 hours weekly. Prerequisite: None. Special fee: $2/cr. hr.—subject to change. This course may be used to satisfy the LERs.

20021 | Basic Microbiology (3)
Principles which will give the students an understanding of microorganisms having a direct relationship on the health and well-being of man. Lecture 2 hours, laboratory 3 hours weekly. Prerequisites: BSCI 20020 and one course in college-level chemistry. Special fee: $4/cr. hr.—subject to change.

20140 | Cell Biology (4)
Investigation of the cell as the fundamental unit of life with an emphasis on the relationship between cellular structure and function. Prerequisites: BSCI 10110, 10120; CHEM 10060, 10061, 10062, 10063; pre- or corequisite: MATH 11011 or 12001. Special fee: $7/cr. hr.—subject to change.

20196 | Introduction to Individual Investigation (1-2)
Introduction to research in the biological sciences under the direction of a BSCI faculty mentor. S/U grading, IP permissible. Prerequisite: 8 hours of BSCI courses with a minimum GPA of 2.0 in those courses. Department and faculty mentor approvals required.

20275 | Local Flora (4)
Identification and field study of local plants: native, naturalized and cultivated. Lecture 2 hours, lab 6 hours weekly. Prerequisites: BSCI 10110 and 10120 or permission. Special fee: $10/cr. hr.—subject to change.

20560 | Invertebrate Zoology (4)
Survey of the animal kingdom emphasizing evolutionary developments. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120.

26002 | Ecological Principles of Pest Management (3)*
Basic principles of integrated pest management, pesticide application, pest identification and environmental effects. Lecture 3 hours weekly; offered only at the Geauga and Salem campuses. Prerequisites: BSCI 26001 and CHEM 16001.

26003 | Plant Identification and Selection I (3)*
Identification and selection of horticulturally important plant species. Emphasis on woody species, shrubs and trees. Lecture 2 hours weekly, lab 3 hours weekly. Offered only at the Geauga and Salem campuses. Prerequisites: HORT 16001 and BSCI 16001 or permission.

26004 | Plant Identification and Selection II (3)*
Identification and selection of horticulturally important plant species. Emphasis on herbaceous species, ground covers and vines. Lecture 2 hours weekly, lab 3 hours weekly. Offered only at the Geauga and Salem campuses. Prerequisites: BSCI 16001 and HORT 16001 or permission.

30010 | H.P.E. Physiology (3)
Basic aspects of nervous and circulatory physioloogy, blood function and metabolism. Open only to HPE majors and minors (or permission). Lecture 3 hours weekly. Prerequisite: BSCI 20020.
30030 Human Physiology (4)
Integrating mechanisms, pharmacological and pathological considerations for selected organ systems. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 20020 or 10110 and 10120; 9 hours chemistry.

30050 Human Genetics (3)
Modern concepts of genetics applicable to the human, including examination of genetically related diseases and their societal implications. Lecture 3 hours weekly. Prerequisites: 8 hours of biology, 5 hours of chemistry, or permission.

30156 Elements of Genetics (3)
Principles of organic mechanisms for expression and transmission of traits as studied in molecules, cells, organisms and populations. Lecture 3 hours weekly. Prerequisites: BSCI 10110 and 10120.

30171 General Microbiology (4)
Fundamental principles of microbiology and of organisms including their structure, physiology, genetics, pathogenicity, classification, mechanisms of cultivation and control. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 20140; CHEM 10060, 10061, 10062 and 10063. Special fee: $7/hr.—subject to change.

30267 Plant Physiology (4)
Survey of physiological and biochemical processes, their interactions and effect on plant growth and behavior. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 20140; CHEM 10060, 10061, 10062 and 10063.

30273 Plant Pathology (3)
Symptoms, causes and control of plant disease with emphasis on ecological relationships of the organisms involved. Lecture 2 hours, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120.

30274 Forestry (2)
Management of the forest resource within appropriate environmental constraints for sustained use relative to watershed protection, lumber production, recreation and wildlife. Lecture 1 hour, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120 or permission.

30277 Economic Botany (2)
Biology of plants important to man and their relation to climate and geography. Lecture 2 hours weekly. Prerequisites: BSCI 10110 and 10120.

30360 General Ecology (4)
Principles of ecology based on field studies of local plant and animal communities. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120; MATH 12001; junior or senior standing.

30361 Biogeography (3)
Geographical distribution of biotic communities with special reference to North America and to their environmental control. Lecture 3 hours weekly. Prerequisites: BSCI 10110 and 10120.

30516 Vertebrate Anatomy (4)
Concepts and methods of functional morphology. Comparative study of vertebrate organs and systems: skeletal, muscular, digestive, respiratory, circulatory, urogenital, nervous and endocrine. Lecture 3 hours, lab 3 hours weekly. Prerequisite: BSCI 10110 or 10120. Special fee: $8/hr.—subject to change.

30518 Vertebetate Embryology and Developmental Anatomy (4)
Gametogenesis, fertilization, embryogenesis, organogenesis, normal/abnormal embryological development; emphasizing mammal, amphibian, bird illustrating general principles and concepts. Laboratory studies of frog, chick, pig developmental anatomy. Three 1-hour lectures and one 3-hour lab. Prerequisite: BSCI 20001 or 30518 and 20140.

30582 Ornithology (4)
Field study of natural history of local birds. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110, 10120, and 10 hours of biology.

30580 Entomology (4)
Classification, biology and ecology of the principal groups of insects. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110, 10120, and 10 hours of biology.

40020 Biology of Aging (3)
Aging in cells, plants and animals, including man; maintaining human health during aging; current theories of aging. Lecture 3 hours weekly. Prerequisites: BSCI 20020; CHEM 10050 and 10052.

40096 Biological Research at Leiden University (6)
Five-week biological sciences research experience at Leiden University in the Netherlands during which the participant will work with members of the Leiden research faculty. Prerequisite: 18 hours of BSCI and permission.

40099 Senior Honors Thesis (1-10)
Honors thesis research project completed during the senior year with BSCI faculty mentor and research committee. Maximum of 4 credit hours to count toward BSCI degrees as upper-division elective hours. IP grade permissible. Prerequisite: Departmental, faculty mentor and Honors College approval.

40142 Biosonergetics (3)
Lecture and discussion of respiration and photosynthesis, their origin, development and control in living systems. Concepts are introduced from fundamental principles. Lecture 3 hours weekly. Prerequisite: BSCI 20140 and CHEM 20481 or 30481.

40143 Eukaryotic Cell Biology (3)
Current survey of the structure and function of eukaryotic cells, including recent advances in research technology. Lecture 3 hours weekly. Prerequisite: BSCI 20140 and CHEM 20481 or 30481.

40158 Molecular Biology (3)
Molecular genetics, DNA and RNA structure, chromosomes, DNA replication, recombination, genetic transcription and translation, gene expression, current concepts and technologies. Prerequisites: BSCI 20140 and 30156.

40159 Molecular Biology Lab (2)
Experience in research methods for studying cellular and molecular processes in plant and animal systems. Lab meets 6 hours weekly. Prerequisite: BSCI 20140; BSCI 40143 or 40158; CHEM 20481 or 30481; CHEM 30475. Special fee: $25/hr.—subject to change.

40160 Marine Biology (3)
Natural history and ecology of marine organisms, with emphasis on life in coastal habitats. Lecture 3 hours. Prerequisite: BSCI 20560 or permission.

40163 Organic Evolution (3)
History of evolutionary theory, the evidences of evolution, the evolutionary forces and the products of these forces. Lecture 3 hours weekly. Prerequisites: BSCI 30156 and 4 hours of biology.

40164 Molecular Systematics and Phylogeneitics (4)
Modern methods used in systematics, DNA sequencing, DNA fingerprinting, phylogenetic analysis and interpretation of character evolution. Three hours lecture and 3 hours lab weekly. Prerequisite: BSCI 40163.

40165 History of Biology (2)
Historical development of biology from antiquity to the present. Lecture 2 hours weekly. Prerequisites: BSCI 10110 and 10120.

40170 Stream Biology (3)
Identification, biology and ecology of stream-inhabiting organisms. Lecture 2 hours, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120.

*Courses offered only at Regional Campuses.
40174 Immunology (3)
Survey of the mammalian host responses to self and nonself with emphasis on the cellular and molecular mechanisms by which innate and acquired immunity result. Experimental design and data analyses are related to current methodologies used to study immunology. Lecture 3 hours weekly. Prerequisites: BSCI 30171 and CHEM 10060, 10061, 10062 and 10063.

40191 Senior Seminar (1)
A capstone seminar course to examine biological topics and scientific contributions across subdisciplines. Discussion of current problems in the biological sciences related to societal needs and concerns. Prerequisite: BSCI 10110, 10120, 20140, 30156, 30360 and 40163.

40192 Internship in Biological Sciences (3-12)
Work experience and training in the biological sciences under the supervision of appropriate personnel in a government agency, nonprofit organization, or business. Maximum of 4 credit hours to count toward BSCI degrees as upper-division elective hours. Prerequisite: 18 hours of biology; 2.75 minimum GPA in biology courses; permission.

40193 Variable Title Workshop in Biological Sciences (1-6)
Topics to be offered will meet specific needs in the biological sciences. S/U graded. Prerequisite: Permission.

40195 Special Topics in Biology (1-3)
Prerequisites: 18 hours of biology and permission of instructor. IP grade permissible.

40196 Individual Investigation (1-3)
Research study under the direction of a BSCI faculty mentor. May be repeated; however a maximum of 4 credit hours counts toward BSCI degrees as upper-division elective hours. Prerequisites: A minimum BSCI grade average of 2.75 and at least 18 credit hours of BSCI coursework. Departmental and faculty mentor approvals required.

40269 Biology of the Algae (4)
Morphology, ecology and systematics of freshwater and marine algae. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110, 10120 plus 10 hours of biology. Special fee: $7/hr. S/U. Prerequisite: BSCI 40436 or permission.

40272 Plant Anatomy (4)
Development and structure of cells, tissues and tissue systems of seed plants. Both vegetative and reproductive structures of angiosperms will be emphasized. Lecture 2 hours, lab 6 hours weekly. Prerequisites: BSCI 10110 and 10120.

40275 Systematic Botany (4)
Biogeography, angiosperm phylogeny, survey of some major families of dicotyledons. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120.

40276 Plant Taxonomy (4)
Nomenclature, classification and floristics; survey of major families of monocotyledons and some major families of dicotyledons. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120.

40277 Morphology of Lower Plants (4)
Nomenclature, classification and floristics; survey of major families of monocotyledons and some major families of dicotyledons. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120.

40280 Palynology and Paleocology (4)
Study and structure of pollen and spores emphasizing use in geology (stratigraphy, paleo-climatic indications), botany (taxonomy), archaeology and medicine (aerolallergens). Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 10110 and 10120 and junior standing, or permission.

40363 Microbial Ecology (3)
Microbial interactions with their biotic and abiotic environment; control of distribution and physiological activities; biochemical cycles; current techniques; emphasis on bacteria in aquatic systems. Pre- or corequisites: BSCI 30171, 30360.

40364 Limnology (4)
Field and laboratory study of the principles of aquatic ecology. Recitation 1 hour, lecture 2 hours, lab 3 hours weekly. Prerequisite: BSCI 30360 or equivalent. Special fee: $10/hr. S/U. Prerequisite: BSCI 30360 or permission.

40365 Limnological Techniques (2)
Analysis and significance of ecologically important variables and constituents of surface waters. Lecture 1 hour, lab 4 hours weekly. Prerequisite: BSCI 40364 or permission.

40366 Wetland Ecology and Management (4)
Lecture, laboratory and field study of the principles of wetland ecology including adaptations of the biota to environmental conditions, comparison among different wetland habitat types and habitat management. Lecture 3 hours, lab 3 hours weekly. Prerequisite: BSCI 10110 and 10120 and 10 hours of biology. Special fee: $10/hr. S/U. Prerequisite: BSCI 40364.

40369 Lake Management (3)

40372 Populations, Communities and Ecosystems (4)
Integrated investigation of population, community and ecosystem ecology from historical and current perspectives. Community and ecosystem views of nutrient dynamics and biodiversity provide a framework for consideration of food web patterns, energy flow, and ecosystem stability and function. Prerequisites: BSCI 30360 and 40163.

40430 General Physiology (4)
Physiologic principles and concepts. Lecture 3 hours, lab 3 hours weekly. Prerequisites: BSCI 20140; CHEM 10060, 10061, 10062 and 10063. Special fee: $2/hr. S/U. Prerequisite: BSCI 40343. 9 hours math or permission: 20 hours chemistry or permission. Corequisite: BSCI 40444.

40432 Endocrinology (3)
Principles of endocrine regulation of physiological and metabolic processes. Morphological and functional interrelationships between systems. Lecture 3 hours. Prerequisite: 5 hours of 40000-level physiology.

40433 Mammalian Physiology I (3)
The internal environment, metabolism and energy balance, temperature regulation, nervous system and special senses. Lecture 3 hours. Prerequisites: BSCI 40340; 9 hours math or permission; 20 hours chemistry or permission. Corequisite: BSCI 40445.

40434 Mammalian Physiology II (3)
Physiology of cardiovascular, renal, respiratory and digestive systems. Lecture 3 hours. Prerequisites: BSCI 40430; 9 hours math or permission; 20 hours chemistry or permission. Corequisite: BSCI 40445.

40435 Reproductive Physiology of Mammals (3)
Current concepts of reproductive processes based on studies with laboratory and domestic animals and man. Lecture 3 hours. Prerequisites: BSCI 40430 and 40432 or permission.

40436 Reproductive Physiology Laboratory (1)
Anatomy and histology of the reproductive systems; research methods for studying reproductive processes. Lab 3 hours weekly. Prerequisite: BSCI 40435.

40439 Environmental Physiology (4)
Effects of heat, cold, oxygen, carbon dioxide, pressure, radiant energy, salt and water variations and other environmental factors on organisms. Prerequisites: BSCI 10110 and 10120 and CHEM 10060, 10061, 10062 and 10063.

40444 Mammalian Physiology Lab I (1)
Laboratory experimentation emphasizing physiological principles covered in BSCI 40433. Corequisite: BSCI 40433. Special fee: $40/hr. S/U. Prerequisite: BSCI 40433.
40445  Mammalian Physiology Lab II (1) Laboratory experimentation emphasizing physiological principles covered in BSCI 40434. Lab 4 hours weekly. Corequisite: BSCI 40434. Special fee: $40/hr.—subject to change.

40515  Animal Behavior (3) Study of patterns of animal behavior and the ecological and physiological mechanisms which regulate their form and occurrence. Lecture 3 hours weekly. Prerequisites: BSCI 20140 and course in zoology of major animal group.

40517  Histology (3) Study of the microscopic and submicroscopic structure of the mammalian body in relation to function. Lecture 2 hours, lab 3 hours weekly. Prerequisites: BSCI 10110, 10120, 20140 and 4 hours of biology.

40525  Wildlife Resources (3) Ecological parameters are discussed relative to the preservation and management of wild animal populations. Aesthetic, economic and environmental values are discussed. Lecture 3 hours weekly. Prerequisites: BSCI 10110 and 10120, plus 4 hours of biology or permission.

40556  Vertebrate Zoology (4) Field approach to identification and natural history of all Ohio vertebrates except birds. Lecture 2 hours, lab and field 3 hours weekly. Prerequisites: BSCI 10110 and 10120, plus 4 hours of biology.

40581  Animal Parasitology (4) Morphology, physiology, life-histories, systematics and economic importance of parasites. Lecture 2 hours, lab 6 hours weekly. Prerequisites: BSCI 10110, 10120, plus 4 hours of biology.

40600  Writing in the Biological Sciences (1) Writing-intensive course taken with a 3- or 4- credit-hour upper-division biology course. Prerequisite: BSCI 10110, 10120, 20140, and junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

BIOTECHNOLOGY (BTEC)

10210  Introduction to Biotechnology (3) Basic principles and applications of modern biotechnology, including recombinant DNA technology, microbial technology, fermentation, genetic engineering, plant and animal tissue culture, and medical biotechnology. Lecture 3 hours weekly. Prerequisite: BSCI 10120.

40191  Seminar: Recent Developments in Biotechnology (1) Recent developments in biotechnology explored through the presentation and discussion of research articles and reviews in the biotechnology literature. Prerequisites: BTEC 10210, BSCI 20140, 30171, 30156, 40158, CHEM 30284, 40248 or permission.

40192  Internship in Biotechnology (6-9) Work experience in a biotechnology laboratory. Registration requires approval of program director, and is dependent on availability of internship sites. Written report of activities required. S/U grading. IP permissible. Prerequisite: Biotechnology major and/or permission.

40196  Individual Investigation in Biotechnology (2-9) Research experience in biotechnology. Registration requires approval of program director and research director. Written report required. IP permissible. Prerequisite: Biotechnology major and/or permission.

40210  Case Studies in Biotechnology (3) Case studies used to explore biotechnology practice and the application of various technologies in industry and medicine. Emphasis placed on developing problem solving, information gathering, inductive reasoning and technical communication skills. Prerequisites: BTEC 10210, BSCI 20140, 30171, 30156, 40158, CHEM 30284, 40248.

40220  Bioinformatics (2) Analysis of biological databases including nucleic acid and protein sequence searching, multiple sequence alignments, protein classification, phylogenetic analysis, comparative genomics, proteomics, protein structure analysis. Prerequisites: BSCI 20140, 30171, 30156, 40158, CHEM 30284, 40248 or permission.

BUSINESS ADMINISTRATION INTERDISCIPLINARY (BUS)

10123  Exploring Business (3) An introduction to the basic areas of business with an integrated perspective on how the various areas work together. Technological competencies and communicative skills will be developed. Team building opportunities will be announced. Prerequisite: Course should be taken sometime during the first 30 semester hours.

20293  Variable Title Workshop in Business (1-3) Variable topics. Prerequisite: None.

BUSINESS MANAGEMENT AND RELATED TECHNOLOGIES (BMRT)*

11000  Introduction to Business (3) Overview of social, economic and consumer environments as related to large and small business. Emphasis is on production, marketing, finance, management and human resources. Prerequisites: US 10006 and ENG 10000, or equivalent.

11006  Business Computations I (3) Application of algebraic and arithmetic concepts to accounting, finance and marketing. Computation of finance charges, taxes, fundamentals of inventory control and depreciation. Prerequisite: None.

11009  Introduction to Management Technology (3) Study of planning, organizing, directing/leadership, controlling, staffing, decision making and communication theories, and management applications of human and material resources and methods. Prerequisite: BMRT 11000 or permission of full-time BMRT faculty.

21000  Business Law and Ethics I (3) Introduction to American law as related to government, business, society and the ethical issues that occur in the legal environment. Emphasis will focus on contract law. Relevant past and current law issues will be addressed. Prerequisite: None.

21002  Business Law and Ethics II (3) This course is a continuation of Business Law and Ethics I. Topics include commercial paper, insurance, real property, partnerships and corporations, security devices and bankruptcy. Prerequisite: BMRT 21000.

21004  Introduction to Business Statistics (3) Basic decision-making statistics for business management. Emphasis is on probability theory, statistical inferences, and decision making under uncertainty. Prerequisite: Math 11011 or equivalent.

21005  Purchasing and Supply Management (3) Practical approach to the material acquisition, management and supply chain function in the American business system. Prerequisite: BMRT 11000 or permission of full-time BMRT faculty.

21006  Human Resources Management (3) The study of contemporary issues of human resources. Covers planning, job design, selection, appraisal, compensation, training, life quality, safety/health, diversity and unions. Prerequisite: BMRT 11009 or permission of BMRT faculty.

*Courses offered only at Regional Campuses.
21008  Case Studies in Management Technology (3)
Application of management theory to actual business situations. Emphasis on decision making and evaluation of methods and styles of management in all functional areas. Prerequisite: Permission of BMRT faculty only.

21009  Seminar in Management Technology (3)
Last-semester students of Business Management Technology engage in critical reading, writing and discussion to apply business theory to on-the-job experiences. Prerequisite: BMRT 21008 or permission of full-time BMRT faculty.

21011  Fundamentals of Financial Management (3)
Understanding basic financial reports for analysis and performance of a business. Preparation of sales forecasts to develop capital and expense budgets. Prerequisites: ACTT 11000 and COMT 11000, or permission of BMRT faculty.

21020  Introduction to Entrepreneurship (3)
Provides information about the functional elements of starting a small business. Includes the use of instruments, exercises and case analyses to assess entrepreneurial skills. IP grade permissible. Prerequisite: None.

21023  Financing the Business Venture (3)

21050  Fundamentals of Marketing Technology (3)
Study of the basic concepts and principles involved in marketing a product/service with an emphasis on the marketing mix variables: product, price, place and promotion. Prerequisite: BMRT 11000, ECON 22060.

21051  Fundamentals of Retailing (3)
A survey of retailing that emphasizes skills necessary for store organization, location, layout, pricing, merchandising and inventory control. New retail concepts are stressed. Prerequisite: BMRT 11000 or permission of BMRT faculty.

21052  Professional Selling Techniques (3)
Study of personal selling as a promotional technique to determine and satisfy the needs of buyers and to build a long-term relationship among all parties. Prerequisite: BMRT 11000 or permission of full-time BMRT faculty.

21053  Advertising in Business (3)
A practical approach to the study of advertising. Emphasis is on the effective use of the media, creating advertising operations and advertising management. Prerequisite: BMRT 21050 or permission of BMRT faculty.

21054  Insurance Principles (2)
Introduction to the types of insurance, risk management and ethics of insurance. Other topics to be addressed are contract law and retirement planning. Prerequisite: BMRT 11000 or permission of BMRT faculty.

21055  Retail Merchandising (3)
Principles and procedures of retail merchandising. Problem solving for merchandising and utilization of mathematical models. Procedures for planning and control of merchandise. Prerequisite: BMRT 21051 or permission of BMRT faculty.

21056  Principles of Visual Display (3)
Basic principles of visual display. Introduction to basic equipment used in display work. Window and interior displays in department and specialty stores. Prerequisite: BMRT 21051 or permission of BMRT faculty.

21057  Principles of Visual Display (1-3)
Revised. (Repeated registration permitted) Special topics in business technology announced when scheduled. Prerequisite: Permission of full-time BMRT faculty.

21092  Internship in Management Technology (1-3)
Students participate in a supervised educational experience. Each credit hour requires a minimum of 7 hours work without pay or 10 hours work with pay per week for 15 weeks. IP grade permissible. Prerequisite: Permission of full-time BMRT faculty.

21095  Special Topics (1-3)
(Repeated registration permitted) Special topics in business technology announced when scheduled. Prerequisite: Permission of full-time BMRT faculty.

21096  Individual Investigation in Business Technology (1-3)
Individual study in business and related fields. Open to business technology students only. IP grade permissible. Prerequisite: Permission of full-time BMRT faculty.

CAREER TECHNICAL TEACHER EDUCATION (CTTE)

36014  Evaluation Practices in Career Technical Education (3)
Study and construction of evaluation devices for use in laboratory and related technology courses, test construction, standardized and nonstandardized test procedures. This course includes 10 field/clinical hours. Prerequisite: None.

36020  Occupational Experience: Technology (12)
Written examination covering technology of a specific occupation. Prerequisite: Department permission.

36021  Occupational Experience: Manipulative (12)
Manipulative examination covering competencies and techniques of an occupation. Prerequisite: Department permission.

40093  Variable Topic Workshop in Career Technical Education (1-5)
Topics of special interest to students desiring to intensify their knowledge in a particular area of career technical education. S/U grading. Prerequisite: Department permission.

44618  Elements of Experience-Based Education (3)
Examination of various aspects of experience-based education includes exploratory, observation, laboratory and paid work experiences. Prerequisite: None.

45372  Issues in Career Technical Education Subjects (3)
Exploration of issues and trends unique to specific career technical education subjects. Prerequisite: None.

45374  Strategies for Teaching Personal Selling (3)
A study of the nature of selling activities and the knowledge, skills and attitude needed in order to teach salesmanship in career-technical education programs. Prerequisite: None.

45376  Entrepreneurship Education (3)
Study of structure and changing environment of service marketing; special emphasis on the qualities/characteristics needed to start and operate a service business. This course includes 30 field/clinical hours. Prerequisite: MKTG 25010 or permission.

45377  Career and Technical Education: Advanced Methodologies (3)
Selection, organization and presentation of subject matter pertaining to specific subjects in career and technical education. Emphasis on methods and techniques through theory and practice. Course includes 30 field/clinical hours. Prerequisite: None.

46001  Organization of Career and Technical Education (3)
Study of the principles and subject areas related to career and technical education at middle school, secondary and adult education levels. Prerequisite: None. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.
46002 *In-Service Teaching I (2)*
Overview of teaching process in career technical teacher education. Emphasizes techniques of skill development and assessment, includes organizing for instruction, individual behavior, organizational relationships and application steps. Prerequisite: Must be admitted into the professional development program for teachers recruited from business/industry.

46003 *In-Service Teaching II (1)*
Continuation of CTTE 46002. Involves professional development, licensure preparation for career technical instructors and organized class instruction. Prerequisite: Must be admitted into the professional development program for teachers recruited from business/industry.

46005 Principles of Career Technical Education (3)
Study of the concept, basic principles and current practices in contemporary career technical education. Includes review of history and programs, methodology, instructional materials and funding. Prerequisite: None.

46015 Methods of Career and Technical Education (3)
Organization and management of classroom and laboratory; includes purchasing equipment and supplies, safety instruction planning, establishing policies, maintaining records, and individual and group instructional strategies. Prerequisite: None.

46017 Youth Organizations in Career Technical Education (3)
Study of youth organizations in career technical education with emphasis on the organization and purposes and advisor role. Prerequisite: None.

46018 Disadvantaged Youth in Career Technical Education (3)
Developing an understanding of disadvantaged youth stressing their characteristics as they pertain to career technical education programs. Prerequisite: None.

46019 Coordination of Career Technical Cooperative Education Programs (3)
Reviews duties, problems, techniques of home, school and work coordination. Internship site selection, job development, servicing the job station, coordinating classroom and work experience. A study of important linkage to local business/industry and education support agencies for career and technical development. Prerequisite: None.

46020 Curriculum Guide: Design and Application (3)
Methods and techniques involved in developing and utilizing a curriculum guide in career and technical education subjects. This course includes 15 field/clinical hours. Prerequisite: None.

46029 Training and Development (3)
An overview of training and development activities in profit and nonprofit organizations. Principles of teaching adults in the workplace are supplemented with curriculum design and instructional methodologies. Prerequisite: None.

46031 Student Teaching in Career Technical Education (8-10)
Provides a 10- to 12-week student teaching experience in a career-technical program setting. See Student Teaching section in this Catalog. Corequisite: VOED 49625. Inquiry into Professional Practice, S/U grading: IP permissible. Prerequisite: Eligible for admission to student teaching.

46032 Internship, Practicum and Field Experience (1-3)
Supervised internship, practicum or field experience in specific occupations. Prerequisite: Permission.

46092 Internship, Practicum and Field Experience in Career Technical Education (2-5)
Supervised internship, practicum or field experience in specific occupations. Prerequisite: Permission.

46095 Special Topics in Career Technical Education (1-3)
Specialized offerings in response to emerging or selected program needs in career technical education. Prerequisite: None.

46096 Individual Investigation in Career Technical Education (1-3)
An individual investigation into problems and topics in career technical education. The investigation is pursued on an individual basis with an assigned faculty member. Prerequisite: None.

46192 Practicum: Occupational (1-6)
Supervised work experience in occupation to obtain initial experience or to update skills. Prerequisite: Permission.

49525 Inquiry into Professional Practice (3)
Interdisciplinary inquiry into career/technical teaching as a professional practice in education; emphasis on teacher as disciplined investigator. Final course of four. Combination of themes; utilization of teaching/learning technologies. Prerequisite: None.

41920 Strategic Planning (3)
Course provides training in strategic planning, including assessing the current environment, developing goals and objectives, and establishing a timeline for action. Prerequisite: Junior standing or permission.

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*Courses offered only at Regional Campuses.*
Course Descriptions

34040 Negotiation (3)
Explores the dynamics of negotiation occurring in different contexts from both a theoretical and practical perspective. Prerequisite: CACM 11001 or permission.

35050 Public Sector Dispute Resolution (3)
Examines alternative dispute resolution principles applicable to public sector disputes, especially environmental and land use disputes. Prerequisite: None.

35092 Internship in Conflict Management (3-12)
(Repeatable for a total of 12 hours) Students work as interns with an organization, group or business, utilizing and enhancing their skills in conflict management. IP grade permissible. Prerequisites: Two upper-division CACM courses and junior standing.

35095 Special Topics (3)
This course is designed to provide students from other majors with special interest subjects related to their field. Prerequisite: None.

35096 Individual Investigation in Conflict Management (3)
Individualized program of study and literature review in area of particular interest to the student. IP grade permissible. Prerequisites: Two upper-division CACM courses and junior standing.

38080 Mediation: Theory and Training (3)
Examines the historical development of mediation. Teaches mediation skills necessary to become a practicing mediator. Prerequisite: CACM 11001 or permission.

41010 Reconciliation Versus Revenge: Transitional Justice (3)
“Transitional justice” refers to civil and political processes used to move from violence and tyranny to peace and democracy. War crimes tribunals, truth and reconciliation commissions, apologies, forgiveness, reparations and memorials will be examined. Prerequisite: None. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

45093 Variable Topic Workshop in Conflict Management (1-6)
Variable topic offered as need arises. Specific topics will be announced in the Schedule of Classes. S/U grading. Prerequisite: Permission.

49091 Seminar in Conflict Management (3)
An overview of qualitative and quantitative research methods used to gather and analyze data in conflict management. This course gives students experience in writing a major research paper. Prerequisites: Junior standing and permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

CHEMISTRY (CHEM)

10095 Special Topics: Study Abroad (0-20)
This course provides a vehicle for registering students enrolled in study-abroad programs involving approved Kent State University exchanges with foreign universities. Prerequisite: Acceptance into study-abroad exchange program.

10030 Chemistry in Our World (3)
A course covering the basic concepts of general, inorganic and organic chemistry necessary for the study of physiological chemistry. Prerequisite: High school algebra or equivalent. This course may be used to satisfy the LERs.

10054 General and Elementary Organic Chemistry (5)
A course covering the basic concepts of general, inorganic and organic chemistry necessary for the study of physiological chemistry. Prerequisite: High school algebra or equivalent. This course may be used to satisfy the LERs.

10060 General Chemistry I (4)
Chemistry for science majors. Emphasizes formulas, equations, stoichiometry, bonding, structure and states of matter. Four hours lecture weekly. Prerequisite: 1 1/2 years high school algebra or equivalent.

10061 General Chemistry II (4)
Second semester for science majors. Emphasizes kinetics, equilibrium, pH, solubility principles, chemistry of selected elements and nuclear chemistry. Four hours lecture weekly. Prerequisite: CHEM 10060.

10062 General Chemistry Lab I (1)
Laboratory covering pertinent aspects of CHEM 10060. Three hours weekly. Pre- or corequisite: CHEM 10060. Special fee: $20/hr.—subject to change.

10063 General Chemistry Lab II (1)
Laboratory covering pertinent aspects of CHEM 10061, including qualitative analysis. Prerequisite: CHEM 10062; Pre- or corequisite: CHEM 10061. Special fee: $20/hr.—subject to change.

10064 Honors General Chemistry (5)
Rigorous general chemistry course for qualified students. Stoichiometry, equilibrium, thermodynamics, kinetics, bonding and structure. Four hours lecture, one 3-hour lab weekly. Prerequisite: Permission. Special fee: $4/hr.—subject to change.

10065 Honors General Chemistry (5)
A continuation of CHEM 10060. Prerequisite: CHEM 10060. Special fee: $4/hr.—subject to change.

16001 Horticultural Chemistry (4)*
This course is designed to give a general overview of basic chemical concepts to students pursuing the two-year degree in horticulture technology. Lecture 3 hours weekly, lab 3 hours weekly; offered only at the Salem Campus. Prerequisite: None. Special fee: $5/hr.—subject to change.

2005 Special Topics (1-3)
(Repeated registration permitted) Selected topics in Chemistry. Prerequisite: Permission.
CHEM 2011 Elementary Quantitative Analysis (4)
Theory and application of volumetric analysis; acid-base, gravimetric, complexation, redox; spectrophotometric, electroanalytical and chromatographic methods of analyses. For nonmajors. Four hours lecture weekly. Prerequisite: CHEM 10063 or 10053 and permission.

CHEM 2012 Elementary Quantitative Lab (2)
Laboratory practice of methods discussed in 2011. Six hours laboratory weekly. Prerequisite: CHEM 20111. Special fee: $30/cr. hr.—subject to change.

CHEM 2024 Physiological Chemistry (4)
Chemistry and metabolism of carbohydrates, lipids, nucleic acids and proteins; regulation of metabolism, nature of enzyme action, clinical aspects of biochemistry. Four hours of lecture weekly. Prerequisites: CHEM 10052 or 20481 or equivalent.

CHEM 2025 Physiological Chemistry Lab (1)
Experiments to illustrate basic biochemical techniques, structure and metabolism. Three hours laboratory weekly. Prerequisite: CHEM 20248. Special fee: $20/cr. hr.—subject to change.

CHEM 20481 Basic Organic Chemistry (4)
Survey of the structure, preparation and reactions (including mechanisms) of organic compounds, emphasizing the chemistry of biologically important functional groups. Prerequisite: CHEM 10061 or 10961.

CHEM 20482 Basic Organic Chemistry (2)
Continuation of CHEM 20481, emphasizing the chemistry of functional groups prevalent in biological chemistry. Prerequisite: CHEM 20481 or 30481.

CHEM 3005 Organic Chemistry (2)
Experiments on the chemistry of biologically important functional groups. Prerequisite: CHEM 20481 or 30481. Special fee: $40/cr. hr.—subject to change.

CHEM 30095 Special Topics in Chemistry (1-3)
(Repeated registration permitted) Selected topics in chemistry. Prerequisite: Permission.

CHEM 30476 Organic Chemistry Lab (2)
Continuation of CHEM 30475, involving multistep organic experiments that utilize techniques introduced in CHEM 30475. Prerequisite: CHEM 30475. Pre- or corequisite: CHEM 20482 or 30482. Special fee: $40/cr. hr.—subject to change.

CHEM 30481 Organic Chemistry (4)
Introduction to organic chemistry from structural, mechanistic and synthetic viewpoints, with an emphasis on the chemistry of biologically relevant functional groups. Prerequisite: CHEM 10061 or 10961.

CHEM 30482 Organic Chemistry (2)
Continuation of CHEM 30481; organic chemistry from mechanistic and synthetic viewpoints. Prerequisite: CHEM 30481.

CHEM 40000 Chemical Information (2)
Access to chemical documents using indexes, formulating search strategies, citation mapping, and manipulation of computer files are treated via lectures, readings and library problems. Prerequisite: CHEM 30482.
40247 Principles of Biochemistry (4)
Chemistry and metabolism of biologically important compounds, enzymes, metabolic regulation and bioenergetics. 4 hours lecture weekly. Prerequisites: CHEM 20481 or 30481 and CHEM 40555 or 40567 or permission.

40248 Advanced Biological Chemistry (2)
Chemistry of biologically important molecules. Advanced topics in: metabolic and enzyme regulation; enzyme kinetics and mechanism; DNA replication, recombination and repair; gene transcription and translation; recombiant DNA technology; selected areas in molecular physiology. 3 hours weekly. Prerequisite: CHEM 30284 or 40245 or 40247.

40251 Advanced Biological Chemistry Lab (2)
Practical experience in the chemistry of biologically important molecules. Properties of enzymes, proteins and nucleic acids. Recombinant DNA technology, 6 hours weekly. Prerequisite: CHEM 40247 or 40245 or permission. Special fee: $40/cr. hr.—subject to change.

40253 Physical Biochemistry I (3)
Principles and techniques of physical chemistry used in studying biomacromolecules and biological systems, spectroscopy, structure and properties of biological molecules. Prerequisite: CHEM 40555 or permission.

40295 Special Topics in Chemistry (1-3)
See CHEM 40195. Prerequisite: Permission.

40352 Inorganic Materials Chemistry (3)
Broad survey of the synthesis, properties, characterization and applications of inorganic materials. Prerequisite: CHEM 40361 and 30450.

40361 Intermediate Inorganic Chemistry (2)
Systematic study of atomic structure, chemical bonding and properties of matter. Includes chemistry of families of elements, acid-base behavior, solvent systems and coordination compounds. 2 hours lecture weekly. Prerequisite: CHEM 40555 or 40567.

40362 Intermediate Inorganic Chemistry (2)
See CHEM 40361. Prerequisite: CHEM 40361.

40364 Intermediate Inorganic Chemistry Lab (1)
A laboratory course providing experience in the synthesis of significant inorganic compounds and the techniques of various experimental and spectroscopic methods and chromatographic separations. Prerequisite: CHEM 40362 or permission. Special fee: $40/cr. hr.—subject to change.

40395 Special Topics in Chemistry (1-3)
See CHEM 40195. Prerequisite: Permission.

40451 Organic Materials Chemistry (3)
Broad survey of the synthesis, properties, characterization and applications of organic and polymeric materials. Prerequisite: CHEM 30482 and 30550 or permission.

40476 Physical Techniques of Organic Chemistry (2)
Methods of organic analysis. Molecular weight determination and stereochemistry. 2 hours lecture weekly. Prerequisite: CHEM 30482 or permission.

40477 Physical Techniques of Organic Chemistry Lab (2)
Practical application of spectroscopic (NMR, MS, IR, UV) and chromatographic (GC, TLC) techniques in structural elucidation of organic molecules. S/U grading. IP permissible. Prerequisite: CHEM 40476 or permission. Special fee: $20/cr. hr.—subject to change.

40478 Synthesis of Organic Liquid Crystals (3)
Synthesis of organic thermotropic liquid crystals including nematic, smectic and discotic variants. Evaluation of phase types using polarizing microscopy and DSC. Brief introduction into their use in display devices. Prerequisite: CHEM 40476 or equivalent.

40481 Intermediate Organic Chemistry (2)
Relationship between reactions of organic compounds and their structures. Electrical distribution and bulk effects. Stability and reactivity. Student seminar presentations. Prerequisites: CHEM 30482 and 40556.

40485 Special Topics in Chemistry (1-3)
See CHEM 40195. Prerequisite: Permission.

40555 Elementary Physical Chemistry (3)
Fundamental concepts of physical chemistry, with example problems chosen emphasizing applications in chemistry and the biological sciences. Prerequisites: PHY 23003, MATH 22005, CHEM 10061. Chemistry major and junior standing. Pre- or co-requisite: CHEM 30102 or department permission.

40556 Elementary Physical Chemistry (3)
A continuation of CHEM 40555. Areas covered include quantum mechanics, atomic and molecular structure, spectroscopy, statistical mechanics, theories of reaction rates, and the solid state. Prerequisite: CHEM 40555 or PHY 45301.

40577 Physical Chemistry Lab (2)
Experiments in numerous areas of physical chemistry, including the interpretation and reporting of obtained experimental data, correlation of results with theory and an introduction to the computer treatment of data. Prerequisite: CHEM 40556. Special fee: $20/cr. hr.—subject to change.

40578 Physical Chemistry of Macro-molecules (2)
Designed to cover the basic principles of polymer science. Structure, properties and characterization of polymeric systems will be discussed. Two hours lecture weekly. Prerequisite: CHEM 40555 or 40567.

40583 Physical Chemistry of Macro-molecules (2)
Designed to cover the basic principles of polymer science. Structure, properties and characterization of polymeric systems will be discussed. Two hours lecture weekly. Prerequisite: CHEM 40555 or 40567.

40595 Special Topics in Chemistry (1-3)
See CHEM 40195. Prerequisite: Permission.

40795 Current Topics in Chemical Education (1-3)
Recent advances in chemical research, instrumentation and theory important to chemical educators. S/U grading. Prerequisite: Permission.

40796 Individual Investigation (1-8)
Registration requires prior approval of the research director. Written report required. Maximum of 2 hours may be applied to the 4 hour CHEM 40000 elective requirement for the chemistry concentration within the B.S. in chemistry. S/U and IP grades permissible. Prerequisite: 2.50 GPA in chemistry and/or permission.

CHINESE (CHIN)
For placement and credit in foreign language courses see Arts and Sciences—Foreign Language Requirement—Placement and Credit.
15101  Elementary Chinese I (4)
An introduction to Mandarin Chinese in the context of modern Chinese-speaking cultures. Prerequisite: None. This course may be used to satisfy the LERs.

15102  Elementary Chinese II (4)
A continuation of the introduction to Mandarin Chinese in the context of modern Chinese-speaking cultures. Prerequisite: CHIN 15101 or equivalent. This course may be used to satisfy the LERs.

25201  Intermediate Chinese I (3)
Continued development of speaking, listening, reading and writing skills, using a variety of cultural materials. Prerequisite: CHIN 15102 or equivalent.

25202  Intermediate Chinese II (3)
Continuation of CHIN 25201. Prerequisite: CHIN 25201 or equivalent.

30095  Special Topics (3)
Topic to be announced in Schedule of Classes. Prerequisite: Permission.

CLASSICS (CLAS)
21201  English Words From Classical Elements (3)
Building of English vocabulary through study of basic roots from Latin and Greek; prefixes, suffixes, rules for accent and pronunciation; specialized scientific and legal terminology. Prerequisite: None. This course may be used to satisfy the LERs.

21404  The Greek Achievement (3)
A survey of the cultural achievements of the ancient Greeks as manifested in their literature and art from the Homeric period through the Hellenistic period. Prerequisite: None. This course may be used to satisfy the LERs and the university Diversity Requirement.

21405  The Roman Achievement (3)
A survey of the cultural achievements of the ancient Romans as manifested in their literature and art from the Etruscan through the Christian period. Prerequisite: None. This course may be used to satisfy the LERs and the university Diversity Requirement.

41096  Individual Investigation (1 or 3)
(Repeatable for a total of 9 hours) Investigation of problems in archaeology, mythology and ancient comparative literature. IP grade permissible. Prerequisite: Departmental permission.

41097  Colloquium in Classics (3)
Detailed study of an aspect of antiquity that engages issues of current interest, for example women in antiquity, ancient Christianity, multiculturalism in antiquity. Prerequisite: None.

41301  Classical Mythology (3)
Assessment of major streams of ancient mythology stressing broad humanistic concepts of religion, philosophy and literature. Prerequisite: Sophomore standing.

41401  Greek Archaeology and Art (3)
(Cross-listed with ARTH 42031) Introduction to archaeology of the Greek world with emphasis on recent discoveries and their impact on the study of Greek art, architecture and sculpture through the Hellenistic period. Prerequisite: None.

41402  Roman Archaeology and Art (3)
(Cross-listed with ARTH 42032) Introduction to archaeology of the Roman world with emphasis on recent discoveries and their impact on the study of Etruscan and Roman art, architecture and sculpture through the imperial period. Prerequisite: None.

41503  Greek Literature in Translation (3)
Major works of Greek literature, studied in their historical context and by genre; knowledge of Greek is not required. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

CLINICAL LABORATORY SCIENCES (CLS)
The courses listed below have been developed for and enrollment is limited to students admitted to the professional study year of the medical technology program.

Medical Technology
49010  Clinical Microbiology: Theory (4)
Theoretical consideration of laboratory isolation, cultivation, identification and characterization of pathogenic microorganisms. Letter grades and IP. Prerequisite: Professional study in medical technology.

49011  Clinical Microbiology: Applications (4)
Applied and practical considerations of theoretical aspects of laboratory isolation, cultivation, identification and characterization of pathogenic microorganisms. Letter grades and IP. Prerequisite: Professional study in medical technology.

49012  Clinical Immunology: Theory (1)
Theoretical considerations of laboratory practices involving quantitation and detection of antigens and antibodies and the significance of these findings in pathological states. Letter grades and IP. Prerequisite: Professional study in medical technology.

49013  Clinical Immunology: Applications (1)
Applied and practical consideration of laboratory practices in immunology and serology relating to diagnosis of disease states. Letter grades and IP. Prerequisite: Professional study in medical technology.

49014  Clinical Mycology: Theory and Applications (1)
Theoretical, applied and practical consideration of the isolation, identification and characterization of pathogenic fungi and their relation to human disease states. Letter grades and IP. Prerequisite: Professional study in medical technology.

49015  Clinical Parasitology: Theory and Applications (1)
Theoretical, applied and practical considerations of the isolation, identification and characterization of human parasites and their relation to pathologic conditions. Letter grades and IP. Prerequisite: Professional study in medical technology.

49020  Clinical Chemistry: Theory (4)
Theoretical considerations of the principles of clinical chemistry relating to the identification and quantitation of biologically important substances in blood and other body fluids. Letter grades and IP. Prerequisite: Professional study in medical technology.

49021  Clinical Chemistry: Applications (4)
Applied and practical considerations of clinical chemistry principles relating to significant changes in body fluids as the result of pathologic conditions. Letter grades and IP. Prerequisite: Professional study in medical technology.

49022  Urinalysis: Theory (1)
Theoretical considerations of the physiological activities of the renal system together with laboratory principles of analysis of urine and other body fluids. Letter grades and IP. Prerequisite: Professional study in medical technology.

49023  Urinalysis: Applications (1)
Applied and practical considerations of laboratory practices in urine and other body fluid analysis as aids in diagnosis of disease. Letter grades and IP. Prerequisite: Professional study in medical technology.
49030 Immunohematology: Theory (2)
Theoretical consideration of laboratory procedures involved in blood grouping and typing; identification of blood group antigens and antibodies; collection and preparation of blood for transfusion. Letter grades and IP. Prerequisite: Professional study in medical technology.

49031 Immunohematology: Applications (2)
Applied and practical consideration of laboratory methods for the administration of blood and its components. Letter grades and IP. Prerequisite: Professional study in medical technology.

49032 Coagulation: Theory and Applications (1)
Theoretical consideration of the coagulation mechanism and its relation to pathological states; identification of abnormalities and deficiencies. Letter grades and IP. Prerequisite: Professional study in medical technology.

49033 Clinical Hematology: Theory (2)
Theoretical considerations of the development of formed elements; identification of marrow and blood cells; study of normal and abnormal cellular blood components. Letter grades and IP. Prerequisite: Professional study in medical technology.

49034 Clinical Hematology: Applications (2)
Applied and practical consideration of laboratory methods and procedures in identification and enumeration of normal and abnormal formed elements of blood. Letter grades and IP. Prerequisite: Professional study in medical technology.

49040 Topics in Laboratory Management (1) (Repeatable for a total of 4 hours) Consideration of topics relating to safety, education, personnel, budgeting, scheduling and medical-legal problems. Letter grades and IP. Prerequisite: Professional study in medical technology.

49045 Special Topics in Medical Technology (1-4) (Repeatable for a total of 4 hours) Topical consideration of special techniques encountered in nuclear medicine, cytology, cytogenetics, virology, toxicology and special instrumentation. Letter grades and IP. Prerequisite: Professional study in medical technology.

COMmUNICATION STUDIES (COMM)

10000 Fundamentals of Speech (3)
Introduction to skill development in spontaneous speaking, short organized presentations, questioning, critical and appreciative listening, and use of rhetorical strategies. Prerequisite: None.

15000 Introduction to Human Communication (3)
An inquiry into the nature and function of human communication in interpersonal, group and public contexts. Prerequisite: None. This course may be used to satisfy the LERs.

20000 Foundations of Communication (3)
This cornerstone course will introduce Pre-COMM majors to the communication discipline by acquainting students with career information, major requirements, skills needed in major courses and database and Internet search strategies. Prerequisite: Pre-COMM major.

20001 Interpersonal Communication (3)
Introduction to human interpersonal communication. Components and structures, situations and contexts are described; nonverbal focus with emphasis on informal experience. Prerequisite: None.

25454 Intercollegiate Forensics I (1-2) (Repeatable for a total of 8 hours) Practicum in intercollegiate forensics for freshmen, sophomores and beginning forensic students. Maximum of 4 hours may apply to the communication major. S/U grading. Prerequisite: Permission.

25464 Argumentation (3)
Introduction to principles of oral and written argumentation. Prerequisite: COMM 15000 or equivalent.

25851 Communication for Teachers (3)
Principles, skills and responsibilities of oral communication as central to the process of teaching all grades and subjects. Focuses upon speaking and listening with pupils, peers and parents. Prerequisite: Education major or permission.

25863 Business and Professional Communication (3)
Fundamentals of public and conference speaking, conducting meetings, electronic presentations, interviewing, and interpersonal relations as applied to business and organizational settings. Prerequisite: None.

25902 Communication Theory (3)
Study of the process of human communication. Emphasis on source, message, channel and receiver dimensions of communication. Examination of major theories of communication and social influence. Prerequisite: None.

26000 Criticism of Public Discourse (3)
A critical examination of selected public speeches representing diverse viewpoints on a variety of historic and contemporary issues, emphasizing methods of evaluating public oral communication and the role of speechmaking in free societies. Prerequisite: Sophomore standing or permission. This course may be used to satisfy the LERs and the university Diversity Requirement.

30000 Communication Research Methods (3)
Introduction to qualitative and quantitative research methods in communication. Students should complete this course early in their program of study. Prerequisite: COMM major and COMM 25902, or permission.

35252 Theories of Rhetorical Discourse (3)
Exploration of rhetoric as the faculty of influencing human decisions through persuasion and as an instrument for the analysis of attempts at communication. Prerequisite: COMM 15000 or equivalent.

35454 Intercollegiate Forensics II (1-2) (Repeatable for a total of 8 hours) Advanced practicum in intercollegiate forensics for juniors and seniors with forensics experience. Maximum of 4 hours may apply to the communication major. S/U grading. Prerequisite: Permission.

35550 Small Group Communication (3)
An examination of group communication in social and family contexts throughout the life span. Prerequisite: COMM major or permission.

35600 Communication in Teams (3)
Examines communication processes and research related to teambuilding, decision-making, task groups, and leadership within the organizational context. Prerequisite: COMM major or permission.

35852 Intercultural Communication (3)
Theory and application of communication between people of different cultures and different national systems. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

35860 Interviewing (3)
Techniques, principles and practical skills for interviews most likely to occur in business environments: job searches and selection interviews, information-gathering interviews, performance appraisals, counseling interviews and persuasive interviews. Prerequisite: None.
35864 Organizational Communication (3)
Application of communication theory to organizational settings. Exploration of communication structures, processes, and methods in organizations. Prerequisite: COMM major or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

35912 Gender and Communication (3)
Examines influence of gender in interpersonal and organizational communication including communication processes in interpersonal violence, STDs and other contemporary social problems. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

36001 Public Communication in Society (3)
Examines communication in public settings. Content includes communication campaigns, corporate crisis communication, public opinion, and communication issues in executive, legislative and judicial settings. Students will be expected to conduct library research and write research papers pertaining to topics relevant to the course. Prerequisite: COMM major and COMM 25902, or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

40001 Advanced Interpersonal Communication (3)
Advanced treatment of interpersonal communication theory and research. Interpersonal principles are applied to group and organizational contexts. Prerequisite: Prerequisite: COMM major and COMM 20001, or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

45007 Freedom of Speech (3)
Examines historic and contemporary instances relating to freedom of speech; study of limits, rights, responsibilities and socio-legal-rhetorical issues. Prerequisite: None.

45092 Internship in Communication Studies (3-6)
A formal, cooperative field experience with a designated organization or agency, as designed by the students and the internship coordinator. S/U grading and IP. Prerequisite: Controlled.

45093 Variable Title Workshop in Communication (1-5)
No more than three credits may be counted as part of the upper-division credits required in the COMM major. S/U grading. Prerequisite: None.

45095 Special Topics in Communication Studies (1-6)
Offered when unusual resources permit a topic different from existing courses. Topic will be announced when scheduled. Prerequisite: None.

45154 Rhetorical Criticism (3)
Standards of criticism in public discourse and methods for their application in persuasive speaking. Prerequisite: COMM major or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

45196 Independent Study: Communication Studies (1-6)
(Repeatable for a total of 6 credits) Readings and/or research on problems approved by undergraduate coordinator in consultation with students’ advisor and faculty project director. S/U grading and IP. Prerequisites: COMM major and permission.

45459 Communication and Conflict (3)
Examination of issues related to managing conflict in communication. Critique and synthesis of conceptual approaches and research pertaining to conflict in interpersonal, organizational and public communication settings. Prerequisite: COMM major or permission.

45780 Co-curricular Speech Programs (3)
Consideration of educational principles and methods of coaching and directing co-curricular speech activities. Aims and typical problems in forensics, theatre and other speech programs. Prerequisite: COMM 25851 or permission.

45855 Organizational Communication Training and Development (3)
Theory and application of diagnosing communication problems in an organization and the intervention process. Prerequisite: COMM major and COMM 3584, or permission.

45902 Theories of Persuasion (3)
The study of persuasion from a social science perspective. Topics include attitudes, relationship between attitudes and behavior, theories and models of persuasion, source, and message effects, and compliance-gaining. Prerequisites: COMM major and COMM 25902, or permission.

45907 Public Speaking for Professionals (2)
Principles of effective speaking in a variety of professional contexts. Emphasis on skill development. Prerequisite: COMM 15000 or equivalent and junior standing.

45959 Nonverbal Communication (3)
Survey of theory and research in nonverbal codes of communication through readings, field study and classroom interaction. Pre- or corequisite: COMM 30000 or permission.

45960 Health Communication (3)
Examines communication processes and research related to health and health care from the perspectives of public, professional and primary discourses. Prerequisite: None.

46091 Senior Seminar (3)
This capstone course helps students synthesize major coursework. Students complete a senior thesis or project, examine ethics and issues in communication and also do a portfolio of their achievements. IP grade permissible. Prerequisite: Controlled; COMM major, 90 credits, and 75% of major completed.

**COMPUTER DESIGN AND ANIMATION ENGINEERING TECHNOLOGY (CADT)**

22000 Advanced CAD (2)
The use of advanced concepts and techniques of computer-aided drafting and design and related productivity improvement tools for two- and three-dimensional drawings. Prerequisite: IERT 12005.

22001 CAD: Architecture (2)
Comprehensive study of the use of a popular computer-aided drafting package for architectural design, including systems management methods and project planning concept. Prerequisite: IERT 12005.

22002 CAD: Civil Applications (2)
A course on the use of computer-aided drafting and design for civil engineering applications. Prerequisite: None.

22003 Solid Modeling (2)
A course in solid modeling using computers. Modeling techniques using regional and solid modular for two-dimensional regions and three-dimensional solids. Prerequisite: CADT 22000.

22004 Computer Animation (3)
A course in 3-D modeling and computerized techniques. An introduction to multimedia development and delivery of animated production. Prerequisite: CADT 22000.

22005 Multimedia and Virtual Reality (2)
A course covering the concepts and techniques for designing and production of effective multimedia applications. Creation of presentations of graphics, text, sound and video. Prerequisite: CADT 22000.

*Courses offered only at Regional Campuses.*
**COMPUTER SCIENCE (CS)**

10001 **Computer Literacy (3)**  
Introduction to history, language, procedures, applications, abuses and impact of computers. Hands-on experience with microcomputers. Not open to students with previous experience. Prerequisite: None. Special fee: $6.67/cr. hr.—subject to change.

10051 **Introduction to Computer Science (4)**  
A broad introduction to the discipline of computer science. A high-level coverage of various aspects of computers, including algorithm design, problem solving, operating system concepts, architecture and programming languages. Prerequisite: MATH 11011 or 12001, or two years of high school algebra. This course may be used to satisfy the LERs. Special fee: $5/cr. hr.—subject to change.

10061 **Introduction to Computer Programming (3)**  
Emphasizes programming in a high-level language, includes structured programming, program design, expressions, data control, arrays, records, strings and functions. Prerequisite: MATH 11011 or 12001, or two years of high school algebra. Special fee: $6.67/cr. hr.—subject to change.

19995 **Special Topics in Computer Science (1-3)**  
Special topics from all areas of computer science. Repeat registration permitted. Prerequisite: None. Special fee: $6.67/cr. hr.—subject to change.

10001 **Data Structures (3)**  
Abstract data types such as stacks, queues, priority queues, linked lists, trees and graphs and the algorithms used with them. Prerequisite: CS 23022 and C (2.0) or better in CS 23021. Special fee: $6.67/cr. hr.—subject to change.

10051 **Social and Ethical Issues in Computing (3)**  
Social issues, including historical and social context, professional responsibilities, risks and liabilities, and intellectual property. Prerequisite: C (2.0) or better in CS 33001. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

23011 **Speed Programming Techniques (3)**  
Techniques useful in the elaboration and correction of programs in an unknown environment and not otherwise covered in elementary courses, and their integration into a whole, building up a repertoire of techniques and algorithms useful to reduce coding and testing time. Corequisite: CS 33001.

23092 **Speed Programming Practicum (2)**  
(Repeated registration permitted) Practice of pertinent aspects from CS 33011. Prerequisite: CS 33011.

33101 **Structure of Programming Languages (3)**  
Introduction to syntax, semantics, behavior and implementation issues in imperative, functional, logic and object-oriented languages; type theory, concurrency, data dependency, nondeterminism and Internet languages. Prerequisite: C (2.0) or better in CS 33001.

33192 **Internship in Computer Science (1-3)**  
Supervised work experience in computer science. Since this work will be outside the department, a report and final presentation will be required; a site visit might also be necessary. S/U grading; IP permissible. Prerequisites: CS 33006 and permission.

33111 **Structure of Compilers (3)**  
Introduction to operating systems, processes and threads, CPU scheduling, mutual exclusion and synchronization, deadlock, memory management, file systems, networking and distributed systems. Prerequisites: CS 35101 and C (2.0) or better in CS 33001. Special fee: $3.33/cr. hr.—subject to change.

39995 **Special Topics in Computer Science (1-3)**  
Special topics from all areas of computer science. Repeat registration permitted. Prerequisite: None. Special fee: $6.67/cr. hr.—subject to change.

41012 **Finite Mathematics (3)**  
(Cross-listed with MATH 31012) A continuation of Discrete Math: emphasizing combinatorial techniques, graph applications in algorithms, finite algebras, number theory and probability. Covers useful math for CS majors. Prerequisite: CS 23022.

42201 **Introduction to Numerical Computing I (3)**  
(Cross-listed with MATH 42201) An introduction to numerical methods and software for solving many common scientific computing problems. Linear systems, least-square data fitting, nonlinear equations and systems and optimization problems. Prerequisites: MATH 12003, 21001 and CS 23021 or permission. Special fee: $3.33/cr. hr.—subject to change.

42202 **Introduction to Numerical Computing II (3)**  
(Cross-listed with MATH 42202) A continuation of CS 42201. Topics include interpolation, numerical differentiation and integration, and numerical solution of ordinary differential equations. Prerequisites: MATH 32044 and CS 42201. Special fee: $3.33/cr. hr.—subject to change.

43005 **Database Systems Design (3)**  
An introduction to the basic theoretical aspects of database systems, file organization, search methodologies, language design and performance evaluation techniques, initial modeling concepts and their use in hierarchical, network, relational and object-oriented database designs. Prerequisite: C (2.0) or better in CS 33001.

43006 **Theory of Object-Oriented Programming (3)**  
In-depth course on the theory and principles of object-based and object-oriented programming using a language such as C++. The course covers advanced topics in inheritance and interface planning, generic (type-independent) programming, factors of polymorphism, structure and organization of class libraries, and object-oriented design principles. Prerequisite: CS 33001. Special fee: $6.67/cr. hr.—subject to change.

43111 **Structure of Compilers (3)**  
Techniques used to write compilers including lexical analysis, syntax analysis, syntax-directed translation, type checking, run-time environments, and intermediate code generation. Prerequisites: CS 35101 and 33101. Special fee: $6.67/cr. hr.—subject to change.
**Course Descriptions**

**43202 Systems Administration (3)**
The setting up and day-to-day administration of multituser, multitasking systems, such as the various versions of UNIX, together with the analysis of problems which can arise in these activities. Prerequisite: CS 33211.

**43203 Systems Programming (3)**
Implementation and maintenance of system programs, system utilities, command interpreters, editors, file maintenance programs, text processors. Interrupt handling. Device drivers. Prerequisite: CS 33211. Special fee: $6.67/hr.—subject to change.

**43901 Software Engineering (3)**
An introduction to software engineering concepts: life cycle models; modeling languages; requirements analysis; specification; design; testing; validation; project management and maintenance. Prerequisite: C (2.0) or better in CS 33001. Special fee: $6.67/hr.—subject to change.

**44201 Artificial Intelligence (3)**
Examines goals, problems, concepts and methods of artificial intelligence, heuristic versus algorithmic methods, natural language comprehension, theorem proving. Prerequisite: CS 33001. Special fee: $3.33/hr.—subject to change.

**45111 Principles of VLSI Design (3)**
Introduction to the design of VLSI chips, with emphasis on FPLD-based design. Students will design various chips using standard industry logic synthesis tools. Prerequisite: CS 35101. Special fee: $10/hr.—subject to change.

**45201 Computer Communications Networks (3)**
An introduction to net-centric systems, data communication protocols, network architectures, routing protocols, network management, congestion control, network security, compression techniques, mobile and wireless networks, and WWW as an example of a client-server system. Prerequisite: CS 33211. Special fee: $3.33/hr.—subject to change.

**45231 Internet Engineering (3)**
Design fundamentals and working principles of Internet systems at the IP layer and above. DNS, inter-domain routing, Internet client server programming, application level protocols (HTTP, XML, etc.), Web server architecture, browser, Internet security and multimedia serving. Prerequisites: CS 33001, 33211 and 45201 or permission. Special fee: $6.67/hr.—subject to change.

**46101 Design and Analysis of Algorithms (3)**
Introduction to algorithmic concepts, design and complexity analysis of algorithms, searching, sorting, graphs, geometric, algebraic and parallel algorithms. Prerequisites: MATH 12003 and C (2.0) or better in CS 33001.

**46201 Introduction to Theory of Automata, Formal Languages, Computation (3)**
A study of alphabets, strings, languages, regular languages and expressions, deterministic and non-deterministic finite automata, context-free grammars and languages, pushdown automata, Turing machines and complexity theory. Prerequisites: CS 23022 and MATH 12003.

**47101 Computer Graphics (3)**
Display file generation, interactive graphics techniques, display devices, three-dimensional graphics, graphic system design, graphic languages and applications in man-machine communications. Prerequisite: CS 23001. Special fee: $6.67/hr.—subject to change.

**47105 Web Design & Programming I (3)**
A joint computer science (CS) and visual communication design course on Web concepts and high-quality Web design: CS, VCD principles, tools, architecture, presentation, design and creation of Web sites by teamwork. Web-based instruction is used. IP grade permissible. Prerequisite: Upper-division CS or VCD and permission.

**47106 Web Design & Programming II (3)**
A joint computer science and visual communication design course on advanced Web techniques and multimedia Web design: Web servers, security, advanced design, Java servlets, applets, database connectivity, site maintenance, creation of actual Web sites by teamwork. IP grade permissible. Prerequisite: CS 47105 or VCD 46000.

**47107 Web Design and Programming Studio (3-6)**
A joint computer science (CS) and visual communication design (VCD) project course. Comprehensive experience on aspects of Web site creation, hosting, maintenance and management. Creative combination and integration of art and programming are emphasized. Prerequisite: VCD 46001 or CS 47106. Special fee: $6.67/hr.—subject to change.

**47761 2nd Year Web Design & Programming (3)**
A joint computer science (CS) and visual communication design (VCD) project course. Comprehensive experience on aspects of Web site creation, hosting, maintenance and management. Creative combination and integration of art and programming are emphasized. Prerequisite: VCD 46001 or CS 47106. Special fee: $6.67/hr.—subject to change.

**49901 Capstone Project (3)**
The course is an integrative experience that brings together all components of the undergraduate computer science curriculum in an applied, hands-on, real world setting. Prerequisites: CS 45201, 45901, 33006, 43005.

**49995 Special Topics in Computer Science (1-4)**
Special topics from all areas of computer science. Repeat registration permitted. Prerequisite: Permission.

**49996 Individual Study (1-4)**
Prerequisite: Permission of instructor.

**49998 Research (1-15)**
Prerequisite: Permission.

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**COMPUTER TECHNOLOGY (COMT)*

**11000 Introduction to Computer Systems (3)**
Laboratory course covering basics of computer systems, including hardware, software and data communications. Hands-on experiences in operating systems, word processing, spreadsheets and Internet. Prerequisite: None.

**11002 Visual Basic Programming (3)**
Laboratory course in the visual basic language introducing concepts of object-oriented, event-driven programming. Prerequisite or corequisite: MATH 10005 or permission.

**11003 Selected Programming Languages (2-4)**
Laboratory course covering a selected programming language. Data types, control structures, data representation, testing, debugging, unique features of language. Repeated registration permitted for different languages. Prerequisite: COMT 11002 or 21001 or permission.

**11004 Survey of Information Technology (3)**
This overview course will provide an introduction to information technologies, career paths and professional certifications available. Prerequisite: None.

**11005 Introduction to Operating Systems and Networking Technology (3)**
(Cross-listed with ITAP 16605) Lab-oriented survey of desktop/network OS essentials, including file/disk management, system tools utilization, resource sharing and introductory network concepts. Prerequisite: None.

**11006 Introduction to Web Site Technology (3)**
Lab-oriented course focused on Web site technologies including HTML. Also, students will learn the history of the Internet and effective search techniques. Prerequisite: COMT 11000 or equivalent knowledge.

**11009 Computer Assembly and Configuration (4)**
Lab course covering disk operating system function and features; hardware/software installation procedures; file and directories management; system configuration/optimization; backup procedures. Prerequisite: COMT 11005 or COMT faculty permission. Special fee: $55/hr.—subject to change.

**12000 Introduction to Computer Systems II (3)**
Lab-oriented course covering advanced concepts of computer applications, emphasizing software suites. Includes presentation software, databases and spreadsheet applications. Prerequisite: COMT 11000 or equivalent knowledge.

*Courses offered only at Regional Campuses.
20001  C++ Programming (3)
Laboratory course using Visual C++ introducing concepts of software development, object-oriented/event-driven programming, testing and debugging, simple and complex data types language syntax and semantics. Prerequisite or corequisite: MATH 10005 or equivalent.

20011  Java Programming (3)
Laboratory course using Java introducing concepts of software development, object-oriented/event-driven programming, testing and debugging, simple and complex data types, language syntax and semantics. Prerequisite: MATH 10005 or equivalent.

21002  Network Setup and Configuration (4)
Laboratory course introducing networking in LAN and WAN environments. Topics include network protocol, configuration, operation, setup, installation, administration, management and security. Prerequisite: COMT 11009 or COMT faculty permission.

21005  Visual Basic Database Programming (4)
Advanced laboratory course in the visual basic language focusing on database systems development. Prerequisite: COMT 11002.

21006  Assembly Language Programming (3)
A course in Assembly Language Programming with applications in software development and an introduction to hardware interfacing to input/output devices. Prerequisite: COMT 11002 or 20001.

21007  Internet Ethics and Policies (3)
This course will cover the ethics, issues and policies regarding the Internet. It includes discussion/research on intellectual property/free-dom, hacking, pornography, privacy, etc. Prerequisite: COMT 11006 or COMT faculty permission.

21008  Computer Methods in Science and Engineering (2)
Use of computers in problems related to science and engineering. Course will include introduction to elements of a high-level scientific language. Prerequisites: MATH 19001, 12001 or equivalent.

21009  Seminar in Computer Technology (3)
Capstone course for COMT students encompassing critical reading, writing and discussion applying the current theories of computer technologies to on-the-job experiences. Students will develop a portfolio to confirm their level of knowledge. Prerequisite: Must have completed all other COMT core courses.

21010  Workgroup Productivity Software (3)
Research project-oriented course emphasizing workgroup methodologies for group project management, problem definition, data retrieval and analysis, conclusions and recommendations. Prerequisite: COMT 12000 or COMT faculty permission.

21011  Techniques of Multimedia Web Design (3)
This lab-oriented course will focus on developing and managing effective Web sites using multimedia elements including sound and video. Prerequisite: COMT 11006 or COMT faculty permission.

21036  Web Scripting I (3)
This course will focus on both client-side and server-side scripting needed to create interactive and dynamic Web sites. The use of scripting in context with various technologies will be explored. Prerequisites: COMT 11002 and COMT 11006, or COMT faculty permission.

21082  Computer Practicum (2)
(Cross-listed with MATH 21092) Supervised work experience in a computer installation. S/U grading. Prerequisite: COMT 11006 or permission.

21095  Special Topics in Computer Technology (1-4)
Topics announced when scheduled. Prerequisite: Permission.

21096  Individual Investigation in Computer Technology (1-4)
Individual study in computer field. Open to computer technology majors. Prerequisite: Permission.

21100  Local Area Network Troubleshooting (3)
Laboratory course covering local area network troubleshooting techniques. Topics will include identifying the scope of the problem, systematic troubleshooting approaches, problem resolution and ongoing maintenance. Prerequisite: COMT 21002.

21110  Internetworking (3)
Laboratory course introducing Internetworking concepts. Topics will include networking standards, cabling, TCP/IP, router configuration, LAN and WAN segments, and other related topics. Prerequisites: COMT 21002 or full-time COMT faculty permission.

10002  Introduction to Careers in Education and Services (3)
Course explores roles of educators in human services, business and industry. Students will evaluate career and personal development relative to these roles and engage in work observation experiences. Prerequisite: None.

20092  Field Experience I: Middle Childhood (1)

37700  Human Relations in a World of Diversity (3)
Emphasizes the study/practice of facilitative human relations in personal and work/career spheres. Topics include, not limited to, gender, sexual orientation/multiculturalism/conflict resolution/value clarification/family influence. Prerequisite: None.

37800  Small Group Process (2)
(Cross-listed with HED 34060) Students learn to understand the dynamics of problem-solving groups and how to become effective leaders and members. Topics include climate, goals, decision making, communication, leadership, membership. Experience-based learning combined with conceptualizing. Prerequisite: None.

40093  Variable Title Workshop in Counseling and Human Development Services (1-4)
(Repeated registration permitted) Topics of special interest to students who desire to increase their knowledge in counseling and related areas. Kent State faculty and experts from other institutions and agencies. Topics will be announced in the Schedule of Classes. S/U grading. Prerequisite: None.

41791  Seminar: Educational Studies and Helping Professions (3)
Directed discussion applying concepts from previous educational experiences to the internship work experience. Corequisite: CHDS 41892.

41892  Internship in Educational Studies and Helping Professions (10)
Placement in a worksite congruent with student’s career aspirations. Ten hours/week for 15 weeks for two semesters or 20 hrs./week for 15 weeks, one semester for a total of 300 hours. S/U grading; IP permissible. Prerequisite: Senior standing; corequisite: CHDS 41791.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>44084</td>
<td>Behavioral Science in Health Professions (1-3)</td>
<td>(Repeatable for a total of 12 hours) Behavioral science perspective on individual and social issues affecting medical care delivery. Individually arranged. May include field projects, participation in health-related investigations and presentations, and personal development programs. Prerequisite: Permission.</td>
</tr>
<tr>
<td>40093</td>
<td>Variable Title Workshop in Curriculum and Instruction (1-5)</td>
<td>Variable topic workshop designed to respond to curriculum trends and issues, and specialized needs. S/U grading; IP permissible. Prerequisite: Permission.</td>
</tr>
<tr>
<td>47006</td>
<td>Individual Investigation in Curriculum and Instruction (1-5)</td>
<td>Prerequisite: Permission.</td>
</tr>
<tr>
<td>47195</td>
<td>Special Topics in Curriculum and Instruction (1-5)</td>
<td>Student teaching. S/U grading; IP permissible. Prerequisite: Permission.</td>
</tr>
<tr>
<td>47330</td>
<td>Reading &amp; Writing in Adolescence/Adulthood (3)</td>
<td>Understanding of literacy learning in adolescence and adulthood (ages 12-21) with an emphasis on strategies for text learning, literacy in electronic environments, and teaching students who struggle as readers and writers. Prerequisite: Sophomore Inquiry Seminar.</td>
</tr>
<tr>
<td>17007</td>
<td>Studio Tap I (1)</td>
<td>Basic tap steps and combinations with varying sound intensities and rhythms. Open to all university students. Prerequisite: None.</td>
</tr>
<tr>
<td>17008</td>
<td>Studio Tap II (1)</td>
<td>Continuation of tap dance technique foundations with emphasis on more advanced dance combinations. Prerequisite: DAN 17007.</td>
</tr>
<tr>
<td>17009</td>
<td>Studio Tap III (1)</td>
<td>(Repeatable for a total of 8 hours) Advanced tap dance techniques with emphasis on clarity, speed and performance skills. Prerequisite: DAN 17008 or permission.</td>
</tr>
<tr>
<td>17010</td>
<td>Studio Ballet I (1)</td>
<td>Introduction to the foundations of ballet placement, vocabulary and movement for the beginner. Open to all university students. Prerequisite: None.</td>
</tr>
<tr>
<td>17011</td>
<td>Studio Ballet II (1)</td>
<td>Continuation of ballet technique foundations with emphasis on more advanced dance combinations. Open to all university students. Prerequisite: DAN 17010.</td>
</tr>
<tr>
<td>17013</td>
<td>Studio African Dance I (1)</td>
<td>Designed to acquaint students with basic elements of African dance. Open to all university students. Prerequisite: None.</td>
</tr>
<tr>
<td>17014</td>
<td>Studio African Dance II (1)</td>
<td>Continued development of African movement styles and rhythms. Open to all university students. Prerequisite: DAN 17013.</td>
</tr>
<tr>
<td>17015</td>
<td>Studio Swing Dance I (1)</td>
<td>(Repeatable to 2 credit hours) Practice of basic swing dance movements with emphasis on social partnering skills. Open to all students. Prerequisite: None.</td>
</tr>
<tr>
<td>17049</td>
<td>Fundamentals of Ballet and Modern Dance (2)</td>
<td>Introduction to intensive exploration of ballet and modern dance technique for nonmajors with special emphasis on alignment, body awareness and movement vocabulary. Prerequisite: DAN 17001 and 17010 or permission.</td>
</tr>
<tr>
<td>17050</td>
<td>Introduction to Dance (1)</td>
<td>Overview of modern dance as a performing art. Specifically, focusing on preparation, basic knowledge and career choices. Prerequisite: Dance major/minor.</td>
</tr>
</tbody>
</table>

*Courses offered only at Regional Campuses.*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisite/Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>27074</td>
<td>Dance Composition I (3)</td>
<td>(Repeatable for a total of 12 hours) Movement exploration and improvisation, including developing the body as an instrument of expression. Prerequisite: DAN 17151 or permission needed from department. Corequisite: DAN 27071.</td>
<td>None. This course may be used to satisfy the LERs and the university Diversity Requirement.</td>
</tr>
<tr>
<td>27076</td>
<td>Dance as an Art Form (3)</td>
<td>Survey of the various types, styles and functions of dance with emphasis on understanding dance as an art form and an expression of culture. Prerequisite: None. This course may be used to satisfy the LERs</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>27170</td>
<td>Introduction to Jazz Styles B (2)</td>
<td>Continued development of basic jazz dance skills. Prerequisite: DAN 27070.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>27171</td>
<td>Modern Dance Technique II-B (3)</td>
<td>(Repeatable for a total of 12 hours) Continuation of intermediate-level dance styles with emphasis on complex movement phrases. Prerequisite: DAN 27071.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>27172</td>
<td>Ballet II-B (2)</td>
<td>(Repeatable for a total of 8 hours) Continuation of intermediate ballet technique. Prerequisite: DAN 27072.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>27174</td>
<td>Dance Composition II: (2)</td>
<td>(Repeatable for a total of 8 hours) Basic principles of dance composition with attention to design, thematic material, structure, form and small groups. Prerequisite: DAN 27074.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37053</td>
<td>Principles of Dance Mechanics II (2)</td>
<td>(Repeatable for a total of 16 hours) Continuation of DAN 17053. Prerequisite: DAN 17053.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37058</td>
<td>Methods and Materials of Dance (3)</td>
<td>(Repeatable for a total of 6 hours) Theory and practice of teaching dance technique from middle school to adults with an emphasis on modern dance. Prerequisite: DAN 27075.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37067</td>
<td>Ballet III-A (2)</td>
<td>(Repeatable for a total of 8 hours) Advanced ballet technique. Prerequisite: DAN 27172.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37068</td>
<td>Modern Dance Technique III-A (3)</td>
<td>(Repeatable for a total of 15 hours) Advanced modern dance technique. Prerequisite: DAN 27171.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37070</td>
<td>Dance Composition III (2)</td>
<td>(Repeatable for a total of 8 hours) Development of individual movement style through improvisational studies and movement manipulation exercises of structure and form resulting in a substantial solo modern dance work. Prerequisite: DAN 27174.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37071</td>
<td>Movement Notation (2)</td>
<td>Analyzing and recording human movement. The common aspects of movement in all forms of sports, dance and aquatics. Analysis and recording with the Labanotation System. Prerequisite: One activity course.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37076</td>
<td>Introduction to Dance Styles B (2)</td>
<td>Continued development of basic jazz dance skills. Prerequisite: DAN 27070.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37154</td>
<td>Advanced Jazz Composition II (3)</td>
<td>(Repeatable for a total of 12 hours) Continuation of intermediate-level dance styles with emphasis on complex movement phrases. Prerequisite: DAN 27071.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37170</td>
<td>Dance Composition IV (1)</td>
<td>(Repeatable for a total of 3 hours) Continuation of advanced composition skills in preparation for the B.F.A. Senior Choreography Project and future choreographic endeavors. Prerequisite: DAN 37070.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37171</td>
<td>Ballet III-B (2)</td>
<td>(Repeatable for a total of 8 hours) Continuation of intermediate ballet technique. Prerequisite: DAN 27072.</td>
<td>None. This course may be used to satisfy the LERs</td>
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<tr>
<td>37172</td>
<td>Ballet II-B (2)</td>
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</tr>
<tr>
<td>37174</td>
<td>Dance Composition II: (2)</td>
<td>(Repeatable for a total of 8 hours) Basic principles of dance composition with attention to design, thematic material, structure, form and small groups. Prerequisite: DAN 27074.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37176</td>
<td>Modern Dance Technique III-B (3)</td>
<td>(Repeatable for a total of 15 hours) Continuation of advanced modern dance technique. Prerequisite: DAN 37068.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37178</td>
<td>Dance Practicum (1)</td>
<td>(Repeatable for a total of 4 hours) Practical experience in cocurriculum dance activities under faculty supervision. S/U grading. Prerequisite: Permission.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37192</td>
<td>Dance Practicum (1)</td>
<td>(Repeatable for a total of 4 hours) Practical experience in cocurriculum dance activities under faculty supervision. S/U grading. Prerequisite: Permission.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>37271</td>
<td>Dance Ensemble II (2)</td>
<td>(Repeatable for a total of 16 hours) Participation in rehearsals, preparation and performance of public dance concerts in an established dance ensemble. Prerequisite: Technique level 20000 or above and audition only.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47054</td>
<td>Modern Dance Technique IV-A (3)</td>
<td>Advanced technique integrating previously learned modern dance techniques and developing advanced movement phrasing. Prerequisite: DAN 37168.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47055</td>
<td>Ballet IV-A (2)</td>
<td>A continuation of DAN 37167 with increasing clarity and control of movements. Prerequisite: DAN 37167.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47060</td>
<td>Professional Aspects in Dance (2)</td>
<td>(Repeatable for a total of 2 hours) Development of pragmatic skills for entrance into professional dance careers. Emphasis on résumé writing, preparation for auditions and economic survival. Prerequisite: Senior status. Must take concurrent with dance technique level III. Permission of department.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47063</td>
<td>Dance History I (3)</td>
<td>History of dance from antiquity to 1900. Prerequisite: Dance major/minor.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47070</td>
<td>Jazz Style-A (2)</td>
<td>Jazz style for students with advanced dance technique. Prerequisite: DAN 27170.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47093</td>
<td>Variable Title Workshop in Dance (1-3)</td>
<td>Offered for specific professional needs. Emphasis on performance workshops. S/U grading. Prerequisite: Permission.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47095</td>
<td>Special Topics in Dance (1-3)</td>
<td>(Repeatable for a total of 24 hours) Offered when resources permit a topic different from existing courses. Topic to be announced when scheduled. Prerequisite: Permission.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47154</td>
<td>Modern Dance Technique IV-B (3)</td>
<td>Continuation of advanced technique integrating previously learned modern dance techniques and developing advanced movement phrasing with special emphasis on performing quality and movement range. Prerequisite: DAN 47024.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47155</td>
<td>Ballet IV-B (2)</td>
<td>A continuation of DAN 47055 with increasing clarity and dynamic expression. Prerequisite: DAN 47055.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47156</td>
<td>Dance Production (3)</td>
<td>Study of elements involved in planning and implementing a concert. Experiential work in technical and management components. Prerequisite: Dance major/minor.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47163</td>
<td>Dance History II (3)</td>
<td>History of the development of concert and theatrical dance forms from 1900 to present day. Prerequisite: Dance major/minor. DAN 47063 or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47170</td>
<td>Jazz Style-B (2)</td>
<td>Continuation of DAN 47070. Prerequisite: DAN 47070.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47174</td>
<td>Senior Choreography Project (1)</td>
<td>(Repeatable for a total of 2 hours) Creation of a modern dance work to be performed with full production values in an approved setting. Prerequisite: DAN 37170.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
<tr>
<td>47192</td>
<td>Internship in Dance (1)</td>
<td>(Repeatable up to 4 hours with different age and ability groups.) Supervised dance apprenticeship in an approved educational setting. Prerequisite: Dance education major or permission.</td>
<td>None. This course may be used to satisfy the LERs</td>
</tr>
</tbody>
</table>
EARLY CHILDHOOD EDUCATION (ECED)

10120  Introduction to Early Childhood Services (2)
Orientation to the field of early childhood education: historical and present-day programs and services for young children, 0-8. Prerequisite: None.

20163  Understanding Young Children: Typical and Atypical Pathways (3)
Growth and development of young children from birth to age 8 as it occurs along both typical and atypical pathways. Corequisites: Block I courses and SPED 23000.

30123  Language and Literacy for the Preschool Child (3)
An examination of the process of language and literacy development in preschool children. The course focuses on how preschool teachers integrate knowledge of development with early school and family literacy learning. Prerequisites: Concurrent registration with ECED Block II and field experience.

30134  Integrated Expressive Arts and Social Studies in Preschool (3)
Young children’s development in the expressive arts and social studies; implications for development of the environment, integrated curriculum and teaching methods for preschool children. Prerequisite: Concurrent with Block I courses. Special fee: $5/cr. hr.—subject to change.

30142  Partnerships and Guidance for Preschool Children (3)
Appropriate guidance strategies set the foundation for positive experiences our youngest children in school; patterns learned early often set a foundation for primary school entry. This course addresses the concerns of guidance, family partnerships, and inclusive schooling with preschool children and their educators. It takes a proactive stance helping teachers develop a constructive guidance approach. Prerequisite: Concurrent with ECED Block II and field experience.

30144  Integrated Curriculum for Social Studies (3)
Objectives, resources, curriculum development, methods of teaching social studies and expressive arts at kindergarten and primary levels; emphasis on developing integrated social studies curriculum; infusing multiple forms of expressive arts into integrated curriculum and assessment; and engaging professional collaboration with teachers in the field. Prerequisites: ECED 30134; concurrent with Block IV and field experience.

30147  Early Experiences in Mathematics and Science (3)
Instructional psychology and materials for effective teaching of mathematics and science in preschool settings with a theoretical emphasis on cognitive development. Prerequisite: C (2.0) or better in MATH 14001; 14002. Concurrent with Block I courses and field experience. Special fee: $5/cr. hr.—subject to change.

30164  Preschool Education (3)
Integrated curriculum utilizing principles of developmentally appropriate practice in settings for children under 5. Field experience two mornings a week. Prerequisites: Concurrent with ECED Block I and field experience.

40093  Variable Title Workshop in Early Childhood Education (1-5)
Topics of special interest to students desiring to intensify their knowledge in particular areas. Presenters include Kent State early childhood faculty members and may include experts from outside agencies and other institutions. S/U grading. Prerequisite: Permission.

40105  Appropriate Phonics Instruction for Kindergarten and Primary Children (3)
An examination of phonics in early reading and writing development, effective strategies for teaching and assessing phonics appropriate for kindergarten and primary grade children. Prerequisite: Concurrent with ECED Block III courses and field experience.

40107  Teaching Mathematics: Early Years I (3)
Instructional psychology and materials for effective teaching of mathematics in grades K-1 with a theoretical emphasis on cognitive development. Prerequisite: ECED 30147; MATH 14001; 14002; concurrent with Block III courses and field experience.

40114  Teaching Science in the Early Years (3)
This course investigates engaging young children in inquiry-based processes of science. Emphasis is given to creating developmentally appropriate experiences in accordance to NAECY guidelines. National and state science standards, as well as the college and graduate school of education conceptual framework. Attention is focused on the use of science materials, safety, planning, assessment, and incorporating science across the curriculum. Prerequisite: ECED 30147 concurrent with Block IV courses and field experience. Special fee: $5/cr. hr.—subject to change.

40125  Inquiry into Professional Practice (3)
Interdisciplinary inquiry into teaching as a professional practice in ECED; emphasis on teacher as researcher. Utilization of teaching/learning technologies. Prerequisite: None.

40126  Developmental Reading and Writing: Early Years (3)
This course builds on work begun in 40105. It explores how teachers support primary children’s literacy development through small group strategic instruction based on formative assessments. Pre-service teachers will also learn how to implement a process approach to writing instruction. Prerequisites: ECED 40106. Corequisites: ECED 40127 and ECED Block IV. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

40127  Developing a Balanced Literacy Program (3)
This course expands on the previous three literacy courses to explore how research-based instruction requires a balance of literacy learning formats, an integration with learning in the content areas and is based on assessment of individual children’s reading and writing abilities. Prerequisite: ECED 40105. Corequisites: ECED 40126 and ECED Block IV.

40128  Integrated Field Experiences (3)
Participation in experiences offering opportunity to plan and teach reading, language arts, integrated content units and observe students in early childhood classrooms. Prerequisites: Concurrent with Block IV courses.

40142  Home-School-Community-Partnerships in Diverse Contexts (3)
Approaches to parent and community involvement in the education and welfare of children are examined, applied and discussed. Focuses are theories, policies, practices, skills and knowledges of partnership building in educational settings. An emphasis on differentiation of practices for diverse communities is applied to teaching and learning in the primary grades. Prerequisites: Advanced standing and permission.
40145  Music and Rhythms in Preprimary Education (3)
Music and rhythms for preprimary children. Option-
al course intended for majors in early childhood
education or other persons desiring additional work
with preprimary children. Prerequisites: Concurrent
with Block II courses.

40146  Teaching with Microcomputers: Early Years (3)
Developing competency in teaching with microcom-
puters in prekindergarten through grade three.
Includes laboratory experience in computerized
lessons and programming in Logo. Prerequisite:
ITEC 47427 or permission of instructor.

40147  Teaching Mathematics: Early Years II (3)
Instructional psychology and materials for effective
teaching of mathematics in grades K-3 with a theo-
retical emphasis on cognitive development. Prereq-
quisite: C (2.0) or better in MATH 14001; 14002.
Concurrent with Block IV courses and field experi-
ence. Special fee: $3.33/hr.—subject to change.

40151  Guidance of Young Children (3)
Principles and practices of appropriate guidance for
young children, intervention strategies, resources
and materials for guidance. Prerequisite: Concurrent
with Block III courses.

40165  Integrated Application of Preschool Curriculum (3)
Internship in preschool. Advanced integrated
preschool curriculum utilizing principles of develop-
mentally appropriate practice focusing on infant,
toddler and preschool-age children. Prerequisite:
ECED 30164; concurrent with Block II courses.

40166  Individual Investigation in Early Childhood Education Technology (1-3)
In-depth study of significant current issues in the
early childhood education field. Prerequisite:
Departmental permission.

40167  Integrated Application of Preschool Curriculum (3)
Open to seniors in ECED. Intensive individual study
on an early childhood topic selected by student and
advisor. Prerequisite: Permission.

40192  Internship in Preschool (6-12)
Internship in preschool settings, full day for 16
weeks. Taken concurrently with Block IV courses.
S/U grading. Prerequisite: ECED 30164.

40196  Individual Investigation in Early Child Guidance (3)
The course foundation is the understanding that
children are a part of a family, culture and commu-
nity. Students gain knowledge and skills to imple-
ment developmentally appropriate child guidance
strategies and learn cross-cultural communication
skills. 12 field experience hours required. Prerequi-
tite: ECED 10120, ECED 20163; or permission.

21010  Infant/Toddler Curriculum and Services (3)
Infant/toddler development, environments and cur-
riculum; theoretical perspectives; family involve-
ment; community involvement; community
resources, collaboration and advocacy; 38 hours of
field experience required. Prerequisite: ECED 10120,
20163, or permission.

21085  Special Topics in Early Childhood Education Technology (1-3)
Intensive study of significant current issues in the
early childhood education field. Prerequisite:
Departmental permission.

21096  Individual Investigation in Early Childhood Education Technology (1-3)
Analysis and special research in the early childhood
education field. Repeatable for a total of 6 hours.
Prerequisite: Departmental permission.

22000  Preschool Curriculum (3)
Preschoolers’ development, environments and cur-
riculum; theoretical perspectives; family involve-
ment; community resources, collaboration and
advocacy; 38 hours of field experience required.
Prerequisites: ECET 21010, ECED 20163 or permis-
sion.

22130  Emerging Literacy (3)
Theoretical and practical issues in acquisition and
development of literacy. Developmentally appro-
priate instructional practices, integration across the
curriculum, individual differences and assessment
are addressed. Field hours required. Prerequisites:
ECED 10120, 20163 or permission.

22140  Student Teaching Seminar (3)
A reflective approach to make student teaching
experience more valuable. Students develop and
implement developmentally appropriate curriculum
and assessment for young children, prepare a pro-
fessional development plan, and develop a profes-
sional portfolio. Corequisite: ECET 22150;
departmental permission.

22150  Student Teaching (6)
Student will spend 300 hours at an approved
preschool program under the supervision of an
ECET/ECED faculty member. S/U grading; IP per-
missible. Corequisite: ECET 22140; departmental
permission.

40292  Internship in Kindergarten/Primary (6)
Internship in grades K-3, full day for 16 weeks. S/U
graduation. Prerequisite: Concurrent with Block V
courses.

EARLY CHILDHOOD EDUCATION TECHNOLOGY (ECET)*

21005  Partnerships in Child Guidance (3)
The course foundation is the understanding that
children are a part of a family, culture and commu-
nity. Students gain knowledge and skills to imple-
ment developmentally appropriate child guidance
strategies and learn cross-cultural communication
skills. 12 field experience hours required. Prerequi-
tite: ECED 10120, ECED 20163; or permission.

21010  Infant/Toddler Curriculum and Services (3)
Infant/toddler development, environments and cur-
riculum; theoretical perspectives; family involve-
ment; community involvement; community
resources, collaboration and advocacy; 38 hours of
field experience required. Prerequisite: ECED 10120,
20163, or permission.

ECONOMICS (ECON)

12060  Personal Finance (3)
Examines economic issues and problems of every-
day life. Goal is to enable individuals to analyze their
personal finances in order to learn how to get the
most out of their income, increase income through
a better understanding of possible investments, and
protect what they have through selecting appropri-
ate insurance. Topics covered include budgeting
and financial planning, federal income taxes, insur-
ance, borrowing, and investment principles and
strategies. Prerequisite: None.

22060  Principles of Microeconomics (3)
Principles and policies affecting prices, including
factor incomes, under alternative market structures.
Tools developed to examine social problems,
including poverty, crime, pollution and international
relations. Prerequisite: MATH 10005 or equivalent
placement based on COMPASS assessment. This
course may be used to satisfy the LERs.

22061  Principles of Macroeconomics (3)
Principles and policies affecting aggregate produc-
tion, consumption, investment and government
expenditures. Includes role of money, the banking
system, inflation, unemployment and economic
growth. Prerequisite: ECON 22060. This course may
be used to satisfy the LERs.

32025  Money, Credit and Banking (3)
Organization of our money, credit and banking sys-
tem; principles and problems of monetary policy.
Prerequisites: ECON 22060 and 22061.

32040  Intermediate Microeconomic Theory and Applications (3)
The study of individual choices under conditions of
relative scarcity, and their consequences for prices
and the allocation of resources in the economic sys-
tem. Develops the analytical and theoretical tools
pertinent in determining how scarce resources are
allocated among competing wants and demon-
strates how these tools are used in real-world appli-
cations. Prerequisites: ECON 22060 and 22061.

32041  Intermediate Macroeconomic Theory and Policy (3)
Analysis of how an economy such as the United
States operates from an aggregate perspective. The
determination for the level of income, employment,
inflation, international trade and economic growth is
analyzed. Discussion of monetary and fiscal poli-
cies. Prerequisites: ECON 22060 and 22061.

32050  Applied Econometrics (3)
Application of econometric methods such as
regression analysis to a variety of economic ques-
tions. Prerequisite: MATH 11012 or 12002, ECON
22060, 22061 and M&IS 24056, or equivalent.
32060 Economics of Retirement (3) Examine economic issues and problems facing individuals upon retirement. Emphasis on financial planning and understanding the economic forces in society that impact senior citizens. Topics covered include financial planning for retirement, federal income taxes, insurance, health care programs, investment principles and strategies, and planning for estate transfer. Designed for individuals approaching retirement, or for students who are planning careers in the service professions working with the retired population. Does not count toward economics major or minor. Prerequisite: ECON 22060.

32070 Labor Problems (3) Surveys of the major institutions, features and functioning of the labor market, as well as some of its outstanding problems. Does not count toward economics major or minor. Not open to students who have completed ECON 42072. Prerequisites: ECON 22060 and 22061.

32075 Introduction to International Trade (3) Introduction to fundamental principles and problems of international trade. Covers comparative advantage, government policies affecting trade, free trade vs. protection, international institutions and exchange rates. Offered only in the Geneva program. Prerequisite: ECON 22061.

32082 Introduction to Managerial Economics (3) Combines economic theory and quantitative analysis to develop resource-allocation decision-making skills which enable managers to evaluate problems, identify possible solutions, and finally implement and monitor the best alternative to accomplish their stated objectives. Covers such topics as supply and demand, consumer theory, production, costs, contracts, game theory, principal-agent problems, and the basic economic models of perfect competition, oligopoly, monopolistic competition and monopoly. Prerequisite: ECON 22060. Cannot be taken by economics majors. Not open to students who have completed ECON 32040.

32083 The Economics of Poverty (3) Nature and causes of poverty in United States. Analysis of impact of poverty upon economy and study of measures both real and potential for alleviating it. Prerequisite: ECON 22060. This course may be used to satisfy the university Diversity Requirement.

32084 Economics of the Environment (3) Examines economic theory of environmental and resource economics in a fashion that is understandable by students with varied backgrounds in economics. Emphasis on microeconomic theory and its application to environmental issues. Topics covered include: “market failure” and its impact on the environment; cost-benefit analysis; and input-output analysis. Designed for those interested in the environment or who may be planning careers in environmental or natural sciences. Prerequisite: ECON 22060.

32086 Economics of Education (3) Economic aspects of primary, secondary and higher education. Returns examined with respect to individuals and society. Covers educational finance and efficient production of education. Prerequisite: ECON 22060.

32088 International Economic Relations (3) Principles, problems and policies of international economic relations, with extensive references to the United States, Western Europe, Latin America and former communist countries. Covers international aspects of interdependency, cooperation and multinational institutions. Prerequisites: ECON 22060 and 22061. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

32089 Law and Economics (3) A study of the economic foundations of the legal system and the impact of legal systems on market behavior. Prerequisite: ECON 22060 or permission of instructor.

32090 Environmental Economics (3) Economics of the environment and the economy. Analysis of nature of significance of barriers to and future potential for economic development of a nation. Special emphasis on theories and strategic factors pertaining to economic growth. Prerequisites: ECON 22060 and 22061.

32091 Social Economics (3) Social responsibility and the market system. Explores ethical issues and public policy questions related to the market system. Prerequisite: ECON 22060.
42191 Senior Seminar in Economics (3)
Advanced investigation of selected topics in economic analysis and issues in economic policy. Prerequisites: ECON 32040 or MATH 40012; ECON 32040 and 32041. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

42299 Senior Project (1-3)
Thesis or independent study project done under the supervision of a faculty member. Written approval of supervising faculty member and department chair required prior to registration. IP permissible. Prerequisite: Senior economics major; permission.

42955 Inquiry Professional Practice in Health/Physical Education (3)
Seminar focused on development of those skills and knowledge which enable future teachers to engage in effective reflective/collaborative/ethical professional practice. Final semester of four. Utilization of teaching/learning tech. Prerequisite: EDPF 39525; corequisite EDPF 49526; admission to professional education.

49526 Student Teaching in Health and Physical Education (12)
Full-time student teaching which includes a balanced experience in elementary and secondary health and physical education. Prerequisite: Permission; corequisite: ECON 49525; admission to professional education.

49525 Education in a Democratic Society (3)
An introduction to the philosophical analysis of educational problems focusing on the goals of education and the school’s role in achieving these goals. Prerequisite: Junior standing.

49526 Inquiry Into Schooling (3)
Issues-based inquiry into historical/philosophical/sociological foundations of education; emphasis on analysis of educational aims to schooling in society. Third course of four. Use of teaching/learning technologies. Prerequisite: EDPF 29525; admission to advanced study.

39596 Individual Investigation in Cultural Foundations (1-3)
Directed independent reading and/or research of special interest or need in student program. Planned with and directed by a faculty member. IP grade permissible. Prerequisite: Permission.

40093 Variable Title Workshop in Educational Foundations (1-4)
Variable topics; designed to respond to specialized needs of various groups within the context of trends, issues and problems in the educational foundations disciplines. S/U grading. Prerequisite: Permission.

42150 Educational Dimensions of Leisure, Retirement and Aging (3)
An intensive inquiry into leisure and its potential for more fully optimizing development, and implications for educational practice both in school and nonschool settings. Prerequisite: Junior standing or permission of instructor.

49570 Social Foundations of Multi-Cultural Education (3)
Analysis of historical, social and ideological forces which relate to current educational policies and practices in multicultural education. School and nonschool education programs will be analyzed. Prerequisite: Junior standing.
ELECTRICAL/ELECTRONIC AND RELATED ENGINEERING TECHNOLOGIES (EERT)*

12000 Electric Circuits I (4)
Direct current circuit analysis involving current and voltage, resistance, energy and power, Ohm’s law, series and parallel networks. Mesh and nodal analysis, network theorems and DC instruments. Corequisite: MATH 11011 or equivalent.

12001 Electric Circuits II (3)
Analysis of capacitive, inductance and magnetic circuits and transients in R-L-C combinations. AC network analysis: mesh and nodal, phasor algebra, power factor, resonance. Prerequisite: EERT 12000. Corequisite: MATH 19002 or equivalent.

12005 Electrical/Electronic Drawing (2)
Electrical/electronic drawing techniques using computer-aided design emphasizing schematic, block and wiring diagrams. Either printed circuit or power layout is covered as needed. Prerequisite: None.

12010 Introduction to Electronics (3)
Semiconductor theory. Properties and applications of PN junctions and bipolar junction transistors and their use in simple circuits. Prerequisite: EERT 12000.

21096 Individual Investigation in Electrical/Engineering Technology (1-4)
Independent, in-depth research of an electrical/electronic engineering technology topic supervised and coordinated by an engineering technology faculty member. Prerequisite: Permission.

22000 Electricity/Electronics with Applications (3)
Basic electronics theory and fundamental concepts of electrical/electronic and digital circuits with applications in the various fields of engineering. Prerequisite: None.

22001 Power Systems (3)
Practical study of power distribution from generator to user. Prerequisite: Sophomore standing.

22002 Industrial Controls (3)
Introduction to control of AC and DC machinery by electromechanical and solid state devices. Study of circuits, troubleshooting methods and logic systems. Prerequisite: EERT 12010 or equivalent. EERT 22002 should be listed as an alternative to EERT 12010.

22003 Technical Computing (3)
An introduction to digital computer systems, flow-chart techniques, programming using a scientific high-level language with applications. Number system conversions, binary codes, error detection and correction. Boolean algebra. Corequisite: MATH 19001 or equivalent.

22004 Digital Systems (3)
Modern integrated digital logic families. Analysis and design of digital circuits such as gates, multivibrators, comparators, counters including interface, control memory and computer circuits. Programmable logic controllers. Prerequisite: EERT 22003 or permission.

22005 Instrumentation (3)
Introduction to modern instrument techniques, includes signal to noise enhancement, active filters, phase locked loops, lock-in-amplifiers, box car integrators, averages and correlator. Prerequisite: EERT 12010.

22006 Electrical Machines (3)
Introduction to transformer action, losses and efficiency. Fundamentals of DC and AC motors and generators and three phase systems. Prerequisite: EERT 12001.

22011 Electronic Systems (3)
Continuation of EERT 12010. Study of field effect transistors, frequency effects, Miller’s Theorem, decibel notation and negative feedback. Prerequisite: EERT 12010.

22013 Industrial Electronics (3)
Solid state devices used in industry, emphasizing thyristors, thyatrons, relaxation oscillators, timing circuits, solid state switches and power supply regulation. Prerequisite: EERT 12010 or equivalent. EERT 22002 should be listed as an alternative to EERT 12010.

22014 Microprocessors and Robotics (4)
An introduction to microprocessor system fundamentals, software and hardware, architecture and instruction set, with applications to robot systems motor control, speech and sensor programming. Prerequisite: EERT 22003.

22015 Robotics and Advanced Microsystems (3)
An advanced course in microprocessor software and hardware. Input/output devices and interfacing with applications to robotics. Troubleshooting and design of microprocessor controlled systems. Prerequisite: EERT 22014.

22016 Productivity Software for Industry (1)
A lab course introducing students to the use of computers for word processing, spreadsheets and database management applications. Students will receive hands-on training on the use of the software applicable to engineering problems using hands-on workshop formats. S/U grading; IP permissible. Prerequisite: None.

22017 Applied Engineering Software (3)
A course on the use of the computer as a problem-solving tool for applications in engineering and manufacturing. Emphasis is on the use of productivity software training on the use of the software applicable to engineering problems using hands-on workshop formats. Prerequisite: EERT 22003.

22018 PC/Network Engineering and Troubleshooting (3)
A course covering the service, maintenance, upgrade and optimization of personal computers. Specification, installation and maintenance of local area networks will be covered. Students will learn communication protocols and network architecture. Two lectures and two labs. Prerequisite: EERT 22014.

22095 Special Topics (1-3)
Special topics in electrical/electronic engineering technology. Repeated registration permitted. Prerequisite: Permission.

23000 Sensors (2)
A study of sensors, transducers, relays, solenoids, servomotors, actuators, lasers, LEDs, photonic and temperature sensors and electronic devices in electromechanical control. Prerequisite: Sophomore or permission.

ENGINEERING OF INFORMATION TECHNOLOGY (EIRT)*

22030 Survey of Information Technology (3)
An introductory course in modern methods and techniques used for information acquisition, processing, storage, conversion, transmission and display. Prerequisite: None.

22032 PC Network Engineering II (3)
A course dealing with the network concepts and methodologies, implementation, monitoring, performance evaluation, service, optimization and control of modern network systems. Two hours lecture and 2 hours lab. Prerequisite: EERT 22018 or equivalent.

22033 Fiber Optics Technology (2)
A course in the concepts and application of fiber-optic technology to industrial, medical, local area networks and digital communication systems. One hour lecture and 2 hours lab. Prerequisite: MATH 19002 and EERT 12001 or equivalent.
ENGLISH (ENG)

For placement in College English courses see Arts and Sciences—English Composition Requirement — Placement.

10000 Introduction to College English (3)
Composition course focusing on short readings to produce at least 4,000 words of graded writing. Essays should progress from personal responses to essays that draw upon the readings. Prerequisite: Test score.

10001 College English I (3)
Composition course with emphasis on critical reading of comparatively short texts to produce at least 4,000 words of graded analytical prose (not research papers) using documentation. Prerequisite: Appropriate placement test score or grade of C (2.0) or better in ENG 10000. This course may be used to satisfy the LERs.

10002 College English II (3)
Composition course integrating readings from no more than three lengthy texts to produce at least 4,000 words of graded writing (analytical essays and an analytical research paper). Prerequisite: Successful completion of ENG 10001 or test scores. This course may be used to satisfy the LERs.

10101 College English I for Foreign Students (3)
Basic expository essay for nonnative students. Emphasis on selection and organization of material, rhetorical patterns, clear and effective expression. Grammar and mechanics as needed. Prerequisite: Successful completion of ENG 10205 or test score.

10202 Intermediate ESL Writing I (3)
Introduction to the requirements of academic writing. Students will be introduced to the process model of writing, constructing a summary, paraphrasing and academic essay structure. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10201.

10203 Intermediate ESL Writing II (3)
Use of the short academic essay to narrate a sequence of events, express an opinion or communicate an idea. Continued instruction in the writing process, academic summary and paraphrase for the ESL writer. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10202.

10204 Expanded ESL Writing I (3)
Expanded understanding of the form and requirements of the academic essay. Acquisition of rhetorical modes of development for the ESL writer. Continued instruction in writing process model and academic summary. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10203.

10205 Advanced ESL Writing II (3)
Course concentrates on how to interpret, respond to and incorporate outside sources into the academic essay. Continued instruction in the acquisition of rhetorical modes of development for the ESL writer. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10204.

10206 Advanced ESL Writing I (3)
Course develops an introduction to reading strategies and skills needed when encountering authentic reading materials. Taught as an integrated skills approach course emphasizing engagement in contextualized and communicative activities. Prerequisite: Placement test.

10211 Elementary ESL Speaking/Vocabulary I (3)
Course develops advanced speaking skills to engage students in complex communicative activities, both real and simulated, with an emphasis on language for academic and professional use. Continues to develop sophisticated vocabulary. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10214.

10212 Intermediate ESL Speaking/Vocabulary I (3)
Course strengthens existing high levels of oral language skills for consistent and sustained use in professional and academic settings and various other contexts. Prerequisite: Placement test.

10216 Advanced ESL Speaking/Vocabulary II (3)
Course focuses on how to interpret, respond to and incorporate outside sources into the academic essay. Continued instruction in the acquisition of rhetorical modes of development for the ESL writer. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10214.

10221 Intermediate ESL Reading I (3)
Develops intermediate reading strategies and skills needed when encountering authentic reading materials. Taught as an integrated skills approach course emphasizing engagement in contextualized and communicative activities. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10221.

10222 Intermediate ESL Reading II (3)
Continued development of and practice in intermediate reading strategies and skills using a variety of cultural materials. Instruction emphasizes integrated skills approach and involvement in communicative activities. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10222.

10224 Advanced ESL Reading I (3)
Further advances reading strategies and skills necessary for understanding academic texts. This course features an integrated skills approach and engages students in a number of communicative activities. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10223.

10225 Advanced ESL Reading II (3)
Course develops advanced speaking skills to engage students in complex communicative activities, both real and simulated, with an emphasis on language for academic and professional use. Continues to develop sophisticated vocabulary. Prerequisite:Placement test or successful completion (C [2.0] or better) of ENG 10224.

10231 Elementary ESL Listening II (1)
Examination of and practice in basic listening strategies. Practice listening to typical speech, short texts and dialog. Practice, relate and apply strategies to life on campus. Prerequisite: Placement test.
10232 Intermediate ESL Listening I (1)
Practice in listening strategies for intermediate-level students. Practice, apply and relate listening skills to life at an American university. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10231.

10233 Intermediate ESL Listening II (3)
Continued practice of intermediate-level listening strategies. Includes practice in listening to colloquial English, longer dialogues and authentic texts for main ideas and specific details, and compensating for listening difficulties. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10232.

10234 Advanced ESL Listening I (2)
Examination and practice in listening strategies for low-advanced students. Includes practice in listening to authentic texts, including TV, radio, news and university lectures. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10233.

10235 Advanced ESL Listening II (2)
Practice with listening strategies for advanced students. Includes practice in listening to authentic English texts, understanding schemata, using top-down and bottom-up strategies, TV news, notetaking skills, and university lectures. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10234.

10241 Elementary ESL Grammar II (3)
An introductory-level course on basic grammar. Introduces fundamental rules of usage, parts of speech, sentence structure, questions, short answers, negations and functions of simple and continuous verb tenses. Prerequisite: Placement test.

10242 Intermediate ESL Grammar I (3)
A low- to intermediate-level course on grammar which includes an examination of form and function, an expansion on verb tenses and an introduction to modals, passive voice and reported speech. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10241.

10243 Intermediate ESL Grammar II (3)
An intermediate-level course with a contextual approach to English grammar to develop students’ knowledge of syntactic structures, verb tenses, modality form and function, nouns and dependent clauses. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10242.

10244 Advanced ESL Grammar I (3)
Contributes to building academic language skills, this course reviews verbal aspect, tense, modality, sentence patterns, the passive voice, reported speech, forms expressing contrast, cause and effect and conditional and introduces verbal forms. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10243.

10245 Advanced ESL Grammar II (3)
Continued development of skills necessary for academic performance. Identifying, analyzing and paraphrasing of structures occurring in academic settings, including verb types and sentence patterns, clause reduction, cause and effect and conditional. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10244.

10250 ESL Pronunciation (1)
Based on a diagnostic test, course focuses on stress, intonation, weak/strong forms and adequate pronunciation of sounds for effective meaning transfer and comprehension. Prerequisite: None.

10261 ESL: Introduction to American Literature I (3)
Develops an understanding of a variety of American literary forms, including oral tradition, fables, myths, folk tales and their types, songs and films. Explores the cultural diversity of North America through the stories of its people. Prerequisite: Placement test.

10262 ESL: Introduction to American Literature II (3)
Utilizes short stories, plays and poems as textual sources to build toward a critical understanding of literary genres within the ethnically diverse nature of American literature. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10261.

10263 ESL: Introduction to Children’s Literature (3)
An introductory survey of classic and contemporary children’s literature, pre-K through 7. Provides an analysis of various genres. Includes a cross-cultural overview of the history, development and criticism of children’s literature. Prerequisite: Advanced I or II placement, or successful completion (C [2.0] or better) of ENG 10262.

10264 ESL: Introduction to Adolescent Literature (3)
An introductory survey of classic and contemporary adolescent and young adult literature (grades 7-12). Provides an overview of genre. Addresses developmental stages of young adulthood as a guideline for working with learners across cultures. Prerequisite: Advanced I or II placement, or successful completion (C [2.0] or better) of ENG 10262.

10266 ESL: Introduction to the Culture of North America (3)
A content-based course which examines core American values and beliefs. Introduces topics such as family, education, religion, government, violence, diversity. Prerequisite: Placement test.

10267 ESL: American Institutions (3)
Course emphasizes core American values and beliefs. Includes topics such as family, education, religion, government, violence, diversity. Discusses concepts of cultural norms, amalgamation, assimilation, pluralism, ethnocentrism. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10266.

10268 ESL: Images and Icons in TV, Film and Technology (3)
Explores values and traditions of American culture as revealed in TV programs, films and TV print-based advertisements. Contributes to increased comprehension of cultural attitudes toward marriage and family, work roles and diversity. Prerequisite: Placement test or successful completion (C [2.0] or better) of ENG 10268.

10274 ESL: Language Skills for TOEFL I (3)
Focusing on the development of lexicogrammatical knowledge as well as listening and reading skills, this course is designed to help students prepare for the TOEFL test and succeed in academic settings. Prerequisite: Intermediate II or advanced I or II placement.

10275 ESL: Language Skills for TOEFL II (3)
Continued development of lexicogrammatical knowledge (including idiomatic language) as well as listening and reading skills. Designed to further prepare students for the TOEFL and succeed in academic settings. Prerequisite: Advanced I or II placement, or successful completion (C [2.0] or better) of ENG 10274.

10284 ESL Technical Writing (3)
Introduces principles of technical writing appropriate to professional communication. Provides practice in the production and evaluation of technical documents, including research reports, proposals, and instruction manuals. Prerequisite: Advanced I or II placement.

10285 ESL Business English (3)
Instruction in principles of effective business communication and practical application of those principles in writing letters, memos, e-mail and reports. Prerequisite: Advanced I or II placement.

*Courses offered only at Regional Campuses.*
10290  ESL University Orientation (1)
Assist ESL students in making the transition to the university, familiarizing students with campus life, refining language and study skills, exploring of relevance of such skills in various majors. Prerequisite: Intermediate II or advanced I or II placement.

10295  Special Topics in ESL (3)
Special topics in content-based teaching of English as a second language. Prerequisite: Placement test.

20002  Introduction to Technical Writing (3)
Introduction to communication practices within technical communities. Planning, drafting, revising and editing. Process descriptions, object descriptions, instructional texts, technical correspondence, problem reports, critical reflection. Prerequisite: Completion of ENG 10001 and 10002 sequence or program requirement.

20003  Intermediate Expository Writing (3)
A continuation of the first-year writing sequence for those wanting to develop their writing abilities further. Approaches vary from instructor to instructor. Prerequisite: ENG 10002 or equivalent.

20021  Introduction to Creative Writing (3)
Practice in various forms of creative writing with some emphasis on student interests and on sources of creativity. Prerequisite: ENG 10002 or equivalent.

21001  Introduction to Ethnic Literature of the United States (3)
Study of selected ethnic American writers; may include works by African, Asian, Hispanic, Jewish, Native Americans and other groups. Prerequisite: ENG 10002 or equivalent. This course may be used to satisfy the university Diversity Requirement.

21002  Introduction to Women’s Literature (3)
Introduction to works by women writing in English, and to literary and gender issues they raise. Prerequisite: ENG 10002 or equivalent. This course may be used to satisfy the university Diversity Requirement.

21003  Introduction to LGBTQ Literature (3)
Introduction to lesbian, gay, bisexual and transgendered literature in English and to issues of gender, sexuality and culture raised by this literature. Prerequisite: ENG 10002 or equivalent.

21054  Introduction to Shakespeare (3)
Study of representative plays and poems in the context of Shakespeare’s age, his language and his cultural influence. Prerequisite: ENG 10002 or equivalent. This course may be used to satisfy the LERs.

22071  Great Books I (3)
Great works of world literature read in English. From ancient world to 1700, covering a wide range of ethnic and national voices, genres and traditions. Prerequisite: ENG 10002 or equivalent. This course may be used to satisfy the LERs.

22072  Great Books II (3)
Great works of world literature read in English. From 1700 to today, covering a wide range of ethnic and national voices, genres and traditions. Prerequisite: ENG 10002 or equivalent. This course may be used to satisfy the LERs.

22073  Major Modern Writers: British and United States (3)
Introduction to British and United States writers of the 20th century; study of their works in their literary and cultural contexts. Prerequisite: ENG 10002 or equivalent. This course may be used to satisfy the LERs.

25001  Literature in English I (3)
British literature or combination of British and U.S. literature written before 1800 studied within a broad historical context. Comprehensive introduction to knowledge and skills that serve as a foundation for further study in literature. Prerequisite: ENG 10002 or equivalent.

25002  Literature in English II (3)
British and U.S. literature written since 1800 studied within a broad historical context. Comprehensive introduction to knowledge and skills that serve as a foundation for further study in literature. Prerequisite: ENG 10002 or equivalent.

26001  Popular Forms of Literature (3)
Introduction to popular forms of literature such as the Western, the detective story, science fiction, fantasy, the war story and others. Prerequisite: ENG 10002 or equivalent.

26005  Sophomore Special Topics (3)
In-depth study of a particular writer, theme or literary movement, such as literature and film, gothic novels. Prerequisite: ENG 10002 or equivalent.

30001  English Studies (3)
Writing about and reading in a variety of texts and critical modes as an introduction to critical thinking and writing. Emphasis on the application of principles and methods of literary study to selected texts. Prerequisite: ENG 10002 or equivalent. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

30062  Principles of Technical Writing (3)
Introduces theoretical principles of technical communication. Extensive practice in the use, evaluation and production of complex technical documents, including research reports/research proposals. Emphasis on oral, written and electronic communication. Prerequisite: Completion of ENG 10001 and 10002 sequence and junior standing and program requirements.

30063  Business and Professional Writing (3)
Analysis of how textual genre function in business and professional settings. Students will gain extensive individual and collaborative practice writing in these genre. Prerequisite: ENG 10002 with a grade of C (2.0) or better and junior standing.

30064  Argumentative Prose Writing (3)
Practice in writing argumentative essays, with emphasis on discussion of student work. Prerequisite: Freshman sequence.

30065  Expository Prose Writing (3)
Practice in prose composition with emphasis on exposition and discussion of student work. Prerequisite: Freshman sequence.

30067  Fiction Writing I (3)
Instruction and practice in writing fiction with specific models and discussions of student work on a weekly basis. Prerequisite: ENG 20021 or equivalent.

30068  Fiction Writing II (3)
Continued instruction and practice in writing of fiction with specific models and discussion of student work on a weekly basis. Prerequisite: ENG 30067.

30069  Poetry Writing I (3)
Instruction in and practice of writing poetry with specific models and discussion of student work on a weekly basis. Prerequisite: ENG 20021 or equivalent.

30070  Poetry Writing II (3)
Continued practice in writing of poetry with specific models and discussion of student work on a weekly basis. Prerequisite: ENG 30069.

30095  Junior Special Topics (3)
An opportunity to focus on important issues in literature, writing, criticism or cultural studies. Prerequisite: Junior standing or permission.

31001  Fundamental English Grammar (3)
Study of grammatical structures and matters of usage and style in edited U.S. English. Prerequisite: ENG 10002 or equivalent.
31002 History of the English Language (3)
Study of the development of the English language from the Indo-European period to the present. Prerequisite: ENG 10002 or equivalent.

31003 Linguistics (3)
Survey of language structure with emphasis on understanding of what we “know” when we “know” language. Prerequisite: ENG 10002 or equivalent.

31004 Lexicography/Lexicology (3)
In-depth study of the lexicon in language use and the reasons for its expansion and continuous change. Study of tools in lexicography, and analysis of the role of lexicography in language education. Prerequisite: ENG 10002 or equivalent.

31005 Child Second Language Acquisition (3)
Explores theory, research, and teaching/learning applications of second language acquisition in children. Prerequisite: ENG 31003.

31006 World Englishes (3)
Explores English varieties in the context of world languages, examining language politics with a focus on first/second language education and literacy in an electronic age. Prerequisite: ENG 10002 or equivalent. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

31007 TESL Pedagogy I (3)
Theoretical bases, approaches, techniques of second language pedagogy at the elementary and secondary levels. Inquiry into ESL methods, materials, and lesson planning. Prerequisite: ENG 10002; EDPF 29525, or permission. Corequisites: ENG 41092 or 41192.

31095 Special Topics in Linguistics (3)
Study of specific topics in linguistics such as sociolinguistics, phonetics and phonology, or bi- and multilingualism. Prerequisite: ENG 10002 or equivalent.

32001 Children’s Literature (3)
Survey of children’s literature from Mother Goose rhymes and picture books through modern realistic fiction. Prerequisite: ENG 10002 or equivalent.

32002 Literature for Young Adults (3)
Study of literature appropriate to young adults. Prerequisite: ENG 10002 or equivalent.

33001 U.S. Literature to 1865 (3)
U.S. literary themes, genres and authors studied in their historical and cultural contexts. Selections from the Colonial period through the Civil War. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

33002 U.S. Literature From 1865 to 1945 (3)
U.S. literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and ENG 25001 or 25002 or permission.

33003 U.S. Literature From 1945 to Present (3)
U.S. literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of World War II to the present. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

33011 African-American Literature (3)
Studies in African-American literature, including such writers as Wheatley, Hammon, Douglass, Jacobs, L. Hughes, Toomer, Cullen, Hurston, Wright, Baldwin, Ellison, Baraka, Walker, Morrison, Brooks and Angelou. Prerequisite: ENG 30001 and 25001 or 25002 or permission. This course may be used to satisfy the university Diversity Requirement.

33012 British and Irish Literature From 1660 to 1800 (3)
Study of plays representing Shakespeare’s entire career, including Henry IV parts I and II, The Merchant of Venice, Measure for Measure, Hamlet, Othello and The Tempest. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

33013 British and Irish Literature From 1800 to 1900 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

33014 British and Irish Literature From 1900- Present (3)
British and Irish literary themes, genres and authors studied in their historical and cultural contexts. Selections from modern and postmodern literature. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

33015 British and Irish Literature From 1660 to 1800 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

33016 British and Irish Literature From 1900 to 1945 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

33017 African-American Literature (3)
Studies in African-American literature, including such writers as Wheatley, Hammon, Douglass, Jacobs, L. Hughes, Toomer, Cullen, Hurston, Wright, Baldwin, Ellison, Baraka, Walker, Morrison, Brooks and Angelou. Prerequisite: ENG 30001 and 25001 or 25002 or permission. This course may be used to satisfy the university Diversity Requirement.

33018 American Literature (3)
Study of American literature from the Colonial period through the Civil War, including Washington, Cooper, Melville, and Twain. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

33019 World Literature (3)
Explores literature from the world’s various cultures, including the Americas, Africa, Asia, and Europe. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34001 British Literature to 1500 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34002 British Literature From 1500 to 1680 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34003 British Literature From 1660 to 1800 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34004 British Literature From 1800 to 1900 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34005 British and Irish Literature From 1900- Present (3)
British and Irish literary themes, genres and authors studied in their historical and cultural contexts. Selections from modern and postmodern literature. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34006 British and Irish Literature From 1660 to 1800 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34007 British and Irish Literature From 1800 to 1900 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34008 British and Irish Literature From 1900 to 1945 (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34009 British and Irish Literature From 1945 to Present (3)
British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34010 British Literature (3)
Study of British literary themes, genres and authors studied in their historical and cultural contexts. Selections from the close of the Civil War through World War II. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34011 World Literature in English (3)
An examination of selected writings in English by Third World, postcolonial or other writers in English, excluding British and U.S. authors. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34012 Women’s Literature (3)
Critical and theoretical consideration of gender issues concerning British and U.S. women writers studied in their historical and cultural contexts. Prerequisite: ENG 30001 and 25001 or 25002 or permission. This course may be used to satisfy the university Diversity Requirement.

34013 Shakespeare (3)
Study of plays representing Shakespeare’s entire career, including Henry IV parts I and II, The Merchant of Venice, Measure for Measure, Hamlet, Othello and The Tempest. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34014 Chaucer (3)
Close study of Chaucer’s poetry including Canterbury Tales, Troilus and Criseyde, and selected lyric poems. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

34015 Special Topics: Major Author Studies (3)
(Repeated registration permitted when topic varies) Intensive study of one or more authors from the English-speaking world. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

35101 Literature and Other Disciplines (3)
Study of literature in relation to, or from the standpoint of, another discipline such as psychoanalysis, psychology, religion, theology, music and painting. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

35201 The Bible As Literature (3)
Study of Bible as a great book subject to literary criticism and as a main document of Western culture. Old and New Testaments read. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

35301 LGBT: Critical Perspectives (3)
Study of theory, language and other aspects of lesbian, gay, bisexual and transgendered literature and culture. Prerequisites: ENG 30001 and 25001 or 25002 or permission.
26001 Literary Criticism (3)
Examination of principal works and theories of major critics. Contemporary critical methodologies include reader response analysis, semiotics and cultural criticism. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39095 Special Topics in Literary History (3)
(Repeated registration permitted when topic varies)
Study of selected topics in literary history such as multiculturalism, canon formation, Colonial literature. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39195 Special Topics in Drama (3)
(Repeated registration permitted when topic varies)
Study of selected topics in drama such as comedy and tragedy; realism and nonrealism; political, religious, period drama. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39295 Special Topics in Poetry (3)
(Repeated registration permitted when topic varies)
Study of selected topics in poetry such as poetic form, historical and cultural contexts, and artistic movements. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39395 Special Topics in Fiction (3)
(Repeated registration permitted when topic varies)
Study of selected topics in fiction such as the autobiographical novel, the novella and the short story. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39495 Special Topics in Comparative Literature (3)
(Repeated registration permitted when topic varies)
Study of selected topics in comparative literature such as movements and genres in world literature, the interrelationships of the arts. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39595 Special Topics in Literary Criticism (3)
(Repeated registration permitted when topic varies)
Study of selected topics in literary criticism such as reader response criticism, psychoanalytic methodologies or Marxist approaches. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39695 Special Topics in Ethnic Literature of the U.S. (3)
(Repeated registration permitted when topic varies)
Study of selected topics in ethnic literature such as the literature of one ethnic group, race and ethnicity in U.S. culture. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39795 Special Topics in Women’s Literature (3)
(Repeated registration permitted when topic varies)
Study of selected topics in women’s literature organized around literary, historical and theoretical issues. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39895 Special Topics in Rhetoric, Composition and Writing (3)
(Repeated registration permitted when topic varies)
Study of selected topics in the rhetorical nature of language and literate practices such as the historical study of political, literary and professional discourse. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

39995 Special Topics in Cultural Studies (3)
(Repeated registration permitted when topic varies)
Study of selected topics in cultural studies organized around a particular mode or methodology of cultural analysis. Prerequisite: ENG 30001 and 25001 or 25002 or permission.

40010 Writing Portfolio (2)
Directed practice in constructing a portfolio of original writing, which may be creative, expository, technical or preprofessional in nature. Restricted to students in the writing minor. IP grade is permissible. Prerequisites: Junior standing; 3.00 GPA in writing courses; and permission.

41001 Sociolinguistics in Schooling (3)
Examines the interactions between society and language. Explores pedagogical implications of language variation. Prerequisite: ENG 31003. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

41002 Computers in L2 Teaching (3)
Designed for teachers of language and culture, this course explores the availability of technology, its implementation in the classroom, and its integration with second language skills. Prerequisite: ENG 10002.

41008 TESL Pedagogy II (3)
In-depth analysis of theory and practice of second language pedagogy at the elementary and secondary levels. Special focus on literacy learning, language for specific purposes instruction, and course design. This course may be taken in the same semester as ENG 41009 Student Teaching. Prerequisite: Admission to student teaching.

41009 Student Teaching (9)
Supervised practice in the teaching of ESL, grades P-12. Prerequisite: Admission to student teaching; Corequisites: ENG 41525.
10001 Introduction to Environmental Technology (3)
Survey course in environmental technology, including health and safety, history, environmental compliance and related issues. Prerequisite: None.

10004 Toxicology (3)
Examination of the terminology and classification of poisons that affect humans. Includes poison sources, modes of exposure, health effects and control measures. Prerequisite: None.

10010 Environmental Hazards Identification and Control (4)
In-depth study of safety methods and procedures with lab for identifying, monitoring, handling, containing and disposing of hazardous substances and hazardous conditions in the workplace. Prerequisite: ENVT 10004.

10021 Environmental Law (3)
Emphasize civil, criminal and tort liability issues; procedural and constitutional requirements; and administrative codes, rules and regulations for fire, health, safety and environmental hazards. Prerequisite: None.

10006 Fire Prevention and Control (3)
Conditions and properties conducive for combustible states and hazards; techniques and procedures for fire extinguishing and control; preventative strategies: fire codes and alarm systems. Prerequisite: ENVT 10001.

10008 Environmental Safety Administration (3)
Organization and operation of environmental safety unit; relationships with business, governmental and community entities involved in environmental safety and hazards control. Prerequisite: ENVT 10010.

20006 Hazardous Waste Operations and Emergency Response (3)
Study of hazardous waste operations and emergency response to release of hazardous materials in compliance with EPA and OSHA regulations (29CFR 1910.120). Prerequisite: None.

21092 Environmental Technology Internship II (3)
This on- or off-campus experience gives students an opportunity to apply learned concepts in the classroom to practical environmental technology situations. Prerequisite: ENVT 20092, permission, or corequisite with ENVT 20092.

22095 Special Topics in Environmental Technology (3)
(Repeatable for a total of 6 hours) Specialized instruction oriented primarily to application of current technology developed for the field of environmental technology. Course is Repeatable as the specific topics will vary. Prerequisite: Permission.

22096 Individual Investigation in Environmental Technology (1-3)
Independent research of environmental technology topic supervised by an environmental technology faculty member. Prerequisite: Permission.

EXPERIMENTAL PROGRAMS DIVISION (EXPR)
Honors College
10295 Selected Topics In (1-3)
Experimental courses dealing with topics that would not normally fall under the purview of existing university collegial structures. Initiated by faculty, students or members of community. Prerequisite: As appropriate.

20002 Writing Portfolio Preparation (1)
Creating an effective writing portfolio for academic or professional use. S/U grading. Prerequisite: ENG 10002.

20295 Selected Topics In (1-3)
Experimental courses dealing with topics that would not normally fall under the purview of existing university collegial structures. Initiated by faculty, students or members of community. Prerequisite: As appropriate.

30000 May 4, 1970 and Its Aftermath (3)
Study of the events of May 4, 1970, at Kent State University and their aftermath from various disciplinary perspectives. Prerequisite: None.

30295 Selected Topics In (1-3)
Experimental courses dealing with topics that would not normally fall under the purview of existing university collegial structures. Initiated by faculty, students or members of community. Prerequisite: As appropriate.
Course Descriptions

20020  Fashion Merchandising Presentations (3)
Study of fashion information, research sources and visual presentation formats used in the fashion industry. Prerequisite: Fashion merchandising major.

20030  Fashion Apparel Analysis (3)
Analysis and evaluation of fashion apparel; quality standards of ready-to-wear apparel and factors that influence the aesthetic and functional performance of the end product. Prerequisite: FD&M 10030.

20121  Fashion Drawing I (3)
Continued study of design illustration techniques as applied to the fashion figure and fabric rendering. Completion of Fashion Drawing I portfolio. Prerequisite: FD&M 10120. Special fee: $3.33/hr.—subject to change.

20122  Fashion Drawing II (3)
Advanced study and development of the fashion figure through live model drawing. Continued study of grouping fashion figures and rendering techniques. Completion of portfolio. Prerequisite: FD&M 20121. Special fee: $3.33/hr.—subject to change.

20141  Flat Pattern/Draping I (3)
Development of basic and torso muslin and slopers. Patternmaking and construction techniques for bodice, sleeve, collar and skirt variations. Prerequisite: FD&M 10030, 10043; pre- or corequisite MATH 10041 or 11012; corequisite: FD&M 10120. Special fee: $21.75/hr.—subject to change.

20142  Flat Pattern/Draping II (3)
Development of pant muslin and sloper. Draping, bodice contouring and one-piece sleeve variations. Students work as a design team to produce a line of casual sportswear. Prerequisite: FD&M 20141; corequisite: FD&M 20122. Special fee: $21.75/hr.—subject to change.

20260  Quantitative Concepts in Retailing (3)
Study of the retailing accounting method, calculations, ratios and percentages. Study of the components of price changes, total cost of merchandise sold and operating expenses. Prerequisite: FD&M 20263 and MATH 10041 or 11011 or 11012.

20261  Store Operations (3)
The supervision, organization and operations management of fashion retail institutions. Pre- or corequisites: FD&M 10000, 20020 and ACCT 2030.

20263  Fashion Retail Industry (3)
Study of retail organizations and structures within the fashion industry. Analysis of supervision, organization, and operations management of fashion retail institutions. Pre- or corequisite: FD&M 10010. Special fee: $3.33/hr.—subject to change.

30083  Professional Seminar (3)
Professional development strategies for fashion and related careers. Emphasis is on verbal and written communication skills. Prerequisite: FD&M junior standing and ENG 10001 and 10002. Special fee: $6.66/hr.—subject to change. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

30121  Fashion Design I (3)
Study of the fashion industry, its regions and markets. Research and theoretical development of a fashion line. Continued development of drawing and rendering skills. Prerequisite: FD&M 20122, 20142; corequisite: FD&M 30141. Special fee: $3.33/hr.—subject to change.

30122  Fashion Design II (3)
Research and theoretical development of fashion lines for specialized markets. Continued development of drawing and rendering skills. Prerequisite: FD&M 30121; corequisite: FD&M 30142. Special fee: $3.33/hr.—subject to change.

30123  CAD for Fashion Applications (3)
The use of CAD to produce technical drawings, sketches, color stories and textile prints for design and merchandising presentations. Prerequisite: FD&M junior standing. Special fee: $16.66/hr.—subject to change.

30133  Fashion Fabric Application (2)
Theory and practice in the selection of fabrics and appropriate construction techniques for various apparel categories. Prerequisite: FD&M 20142. Special fee: $12.50/hr.—subject to change.

30141  Fashion Studio I (3)
Advanced patternmaking and construction techniques are used to create original garments designed in Fashion Design I. Prerequisite: FD&M 20142; corequisite: FD&M 30121. Special fee: $11.75/hr.—subject to change.

30142  Fashion Studio II (3)
Advanced patternmaking and construction techniques are used to create original garments designed in Fashion Design II. Prerequisite: FD&M 30141; corequisite: FD&M 30122. Special fee: $11.75/hr.—subject to change.

30213  Fashion Marketing (3)
Examination of fashion producers/retailers’ roles in marketing communications. Analysis of consumer motivation to develop sales strategies in relationship to marketing strategies. Prerequisite: MKTG 25010 and all required 2000-level FD&M courses completed.

30260  Product Development in the Fashion Industry (3)
Researching, planning, developing and presenting a fashion product line for an identified target market with regard to prices, styling and timing. Prerequisite: FD&M 10020, 10030 and MKTG 25010.

30262  Fashion Merchandise Planning and Buying (3)
Study of market sources, fashion buying techniques, assortment planning and allocation, and quantitative calculations needed in the fashion industry. Prerequisites: FD&M 10010 and MATH 10041 or 11011 or 11012.

30272  Merchandise Planning and Control (3)
Application of quantitative concepts, terms, formats and calculations used in various retail planning methods and strategies. Prerequisite: FD&M 20260. Special fee: $5/hr.—subject to change.

35013  Fashion Accessories (3)
The merchandising, promotion and sales of accessories. Materials, production and resources are examined by category. Prerequisite: Fashion design or fashion merchandising major; junior standing.

35063  Visual Merchandising and Display (3)
Theory and practice of merchandise presentation for the purpose of promotion and sales. Prerequisite: FD&M 10020 and junior standing.

35125  Textile Applied Design (3)
Techniques used in the creation of original designs for printed fabrics. Prerequisite: FD&M 20122.

35260  Merchandising for Home Furnishings (3)
Introduction to the various retail classifications of home furnishing merchandise to include furniture, floor coverings, window treatments, household linens, table tops, housewares and decorative accessories. Prerequisite: None.

35520  Computer Applications in Retailing (3)
The application and use of the microcomputer to solve problems in assortment planning, merchandise management, trading area and site analysis, store planning, programming and media planning. Prerequisites: FD&M 20263 and MATH 10041 or 11011 or 11012. Special fee: $5/hr.—subject to change.

35280  Fashion Entrepreneurship (3)
In-depth study of entrepreneurship concepts as applied to manufacturers and retailers of apparel including product development, accounting and control, merchandising and buying, operation and management, advertising and promotion. Prerequisite: All required 2000-level FD&M courses completed.
40121 Fashion Portfolio I (2)
Develop a professional design portfolio which will emphasize in-depth individual investigation of specific apparel markets, target customers and various illustrative techniques. Prerequisites: FD&M 30122, 30142; corequisite: FD&M 40141. Special fee: $5/cr. hr.—subject to change.

40122 Fashion Portfolio II (2)
Develop a professional fashion design portfolio geared to fall/winter. Portfolio will emphasize apparel line-building as well as illustration techniques. Prerequisite: FD&M 40121; corequisite: FD&M 40142. Special fee: $5/cr. hr.—subject to change.

40141 Fashion Studio III (3)
Development of patternwork, specification sheets and muslins for original line. Faculty critiques. Prerequisites: FD&M 30122, 30142; corequisite: FD&M 40121. Special fee: $8.33/cr. hr.—subject to change.

40142 Fashion Studio IV (3)
Construction and completion of garments for original line. Faculty critiques. Prerequisite: FD&M 40141; corequisite: FD&M 40122. Special fee: $8.33/cr. hr.—subject to change.

40281 Fashion Buying (3)
A study of market sources, fashion buying techniques, vendor relationships, practices and approaches as a function of assorting plan and vendor selection. Prerequisite: FD&M 10030 and 30272.

40291 Fashion Merchandising Seminar (3)
Suggested for final semester of the FD&M major. Study of the business of fashion. This course builds and expands on all merchandising-related coursework with the goal of integrating content and applying it to real-life scenarios through critical thinking and analysis. Prerequisite: All required 30000-level FD&M courses completed. Pre- or corequisite: FD&M 45011 and 45012.

45011 Fashion Forecasting (3)
Identifying trends to develop fashion forecasts. Interrelationships of forecasting, promotion, public relations and the media. Prerequisite: All required 30000-level FD&M courses completed.

45012 Textiles and Apparel in the Global Economy (3)
Global perspective on the production and marketing of textiles and apparel: historical, geographic and economic factors that influence the world trade in soft goods. Prerequisite: All required 20000-level FD&M courses completed.

45013 Fashion Study Tour (1-3)
Visit to domestic or foreign fashion market, including design and fabric houses or showrooms, retail stores, buying offices and other areas of the fashion industry. Prerequisite: Permission. Special fee: Actual cost basis.

45035 Historic Textiles (3)
Identification and analysis of textile fabrics as the reflection of culture. Prerequisite or corequisite: HIST 11050 or 11051 or ARTH 22006 or 22007. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

45092 Internship (3)
Supervised practical experience in the fashion industry. Eligibility requirements available from the School of Fashion Design and Merchandising field studies coordinator. Prerequisites: FD&M 30083 and junior standing; permission.

45093 Variable Title Workshop—FD&M (1-3)
(Repeatable for a total of 6 hours) S/U grading. Prerequisite: Permission. Special fee: Actual cost basis.

45095 Special Topics (1-3)
Variable content relevant to the field of fashion. Prerequisite: Permission.

45096 Individual Investigation (1-3)
Individual investigation of topic above the level available through coursework. Requires submission of and approval of project proposal prior to registration. Prerequisite: Permission.

45145 Tailoring (3)
Traditional and contemporary techniques for constructing tailored garments. Prerequisites: FD&M 30122, 30142. Special fee: $5/cr. hr.—subject to change.

45212 Fashion Show Productions (3)
Analyses of fashion show formats are considered for promotion purposes. Production planning, organization and physical requirements are studied. Class produces a fashion show. Prerequisite: None.

**FINANCE (FIN)**

26093 Variable Title Workshop in Finance (2)
S/U grading. Prerequisite: Permission of instructor.

26059 Personal Asset Management (3)
Description, evaluation and selection of investment alternatives (stocks, bonds, real estate, etc.) for individuals. Prerequisite: None.

26070 Introduction to Law (3)
Evolution and implications of fundamental legal concepts and institutions. Introduction to the case method: substantive and procedural law and various forms of legal activity. Prerequisite: None.

26074 Legal Environment of Business (3)
Coverage of the nature, structure and significance of the legal and regulatory areas which confront business, with special emphasis on business ethics, environmental and international issues. Prerequisite: Sophomore standing.

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*Courses offered only at Regional Campuses.*
36061 Real Estate Principles (3)
Principles and practices of real estate, real estate laws, contractual instruments, valuation, financing, and markets in commercial and residential real estate. Prerequisite: Junior standing.

36063 Individual Investment Analysis and Strategies (3)
Examination of investment analysis and strategies with emphasis on individuals. Open only to nonfinance major. Cannot be counted toward finance major. Either this course or FIN 36059, but not both, can count as an elective in a College of Business Administration program. Prerequisite: FIN 36053.

36071 Critical Issues in Law Management (3)
Introduction to the law of agency and business organizations. In-depth examination of partnerships and corporations, securities law, employment law and the multinational corporation areas. Prerequisite: FIN 26074.

36072 Law of Commercial Transactions (3)
Introduction to real and personal property, commercial paper, agency law, business organizations, bankruptcy, secured transactions and other related areas of business law. Primarily for accounting majors. Prerequisite: FIN 26074.

36081 Principles of Insurance (3)
Examination of insurance industry, its regulatory environment and insurance contracts. Life and health insurance, as well as property and liability insurance are covered. Prerequisites: ECON 22060 and 22061.

36084 Business Risk Management (3)
Development of business consumers insurance and risk management programs. Study of corporate risk manager’s viewpoint regarding recognition, analysis and treatment of risk. Legal and regulatory environment of firm at risk and the insurance industry. Prerequisite: FIN 36053; see notes 1 and 2.

40093 Variable Title Workshop in Finance (1-6)
S/U grading. Prerequisite: see notes 1 and 2.

46054 Financial Risk Management (3)
Understanding techniques and financial tools used in managing financial risk. Analysis of contracts (options, forwards, futures) undertaken in the context of financial regulation and ethical practices within the financial marketplace. Prerequisite: FIN 36053; see notes 1 and 2.

46055 Options and Futures Markets (3)
Comprehensive analysis of options and futures markets and their role in the financial system. Valuation methods, advanced hedging, arbitration techniques and the regulatory environment. Prerequisite: FIN 36059 or permission.

46057 Financial Analysis (3)
Introduction to use of computer software and methods in financial planning. Statement analysis and selected applications; i.e., working capital management, capital budgeting, planning models and option pricing. Prerequisite: FIN 36053.

46059 Financial Policy (3)
Capstone course in finance with emphasis on financial policies and strategic financial decision making with respect to both short-term and long-term financial management problems. Prerequisites: FIN 36054 and M&IS 24056. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

46064 International Business Finance (3)
Management of the finance function of an international company, including foreign exchange exposure management, foreign investment, short-term and long-term capital management, and international accounting and taxation. Prerequisites: FIN 36053 and 36054 and senior standing.

46067 Portfolio Analysis (3)
Principles, methods, techniques of portfolio analysis. Emphasis on determination of portfolio risks and returns. Political, ethical, global forces affecting asset returns and risks are evaluated. Prerequisite: FIN 36059.

46068 Financial Management of Commercial Banks (3)
Financial management techniques applied to commercial banks. Focus on management of liquidity, investment and loan portfolios, and capital structure. Prerequisite: FIN 36058 and 36054.

46091 Finance Seminar (3)
Seminar integrating entire field of finance. Elective for finance majors. Prerequisite: Controlled; see notes 1 and 2.

46192 Internship in Finance (3)
An internship for finance majors interested in obtaining career-relevant experience. Students and employers must satisfy criteria established by the department. Students are responsible for securing employment. Prerequisite: Controlled admission.

46295 Finance Special Topics (3)
Deal with special topics in finance. New subjects not covered in other existing courses. Prerequisites: FIN 36053 and senior standing.

FINE AND PROFESSIONAL ARTS (FPA)

20000 Performing Arts I (3)
An interarts course introducing expressive materials, representative literature and historical contexts of major dance, music and theatre styles with appropriate reference to other art forms. Prerequisite: None.

20001 Performing Arts II (3)
Continuation of Performing Arts I. Prerequisite: None.

Special Topics

10195 Special Topics (2-5)

20295 Special Topics (2-5)

30395 Special Topics (2-5)

40495 Special Topics (2-5)

This program, administered by the dean, is intended to encourage interdisciplinary study, to cover areas not treated adequately in the standard course, and to make available promptly the new and significant experience of the faculty.

Requests for the scheduling of these courses are made by faculty members or students to the sponsoring school, or to the dean. The schools concerned are to clear the proposed course with the Curriculum Committee of the college.

FRENCH (FR)

For placement and credit in foreign language courses see Arts and Sciences—Foreign Language Requirement—Placement and Credit.

13201 Elementary French I (4)
An introduction to the French language in the context of Francophone cultures. Prerequisite: None. This course may be used to satisfy the LERs.
13202 Elementary French II (4)
A continuation of the introduction to the French language in the context of Francophone cultures. Prerequisite: FR 13201 or equivalent. This course may be used to satisfy the LERs.

22201 Intermediate French I (3)
Continued development of speaking, listening, reading, and writing skills using a variety of cultural materials. Prerequisite: FR 13202 or equivalent.

22202 Intermediate French II (3)
Continuation of FR 22201; credit may be given for FR 23202 or for FR 23206, but not both. Prerequisite: FR 22201.

23206 French Reading for Comprehension (3)
Further develops skills and techniques for understanding written French; conducted in English. Credit not applicable toward French major or minor. Students may obtain credit in FR 23202 or 23206, but not both. Prerequisite: FR 23201.

23207 Business French I (3)
Terminology, organizations and modes of communication prevalent in modern French business world. Presentation of materials followed by practical exercises organized in situational units. Prerequisites: FR 23202 and appropriate score on MLA Level II exam.

23208 Business French II (3)
Terminology, organizations and modes of communication prevalent in modern French business world. Presentation of materials followed by practical exercises organized institutional units. Prerequisites: FR 23207 or equivalent.

23209 Field Study (2-6)
(Repeatable for a total of 6 hours) For residence and/or field research in a French-speaking community. Prior to registration for this course, students must obtain departmental approval. IP grade permissible. Prerequisite: One year of college language or equivalent.

33085 Selected Topics in French (3)
(Repeatable for a total of 9 hours) Topic to be announced in the Schedule of Classes. Prerequisite: FR 33211 or permission.

33211 French Conversation (3)
A course designed to enhance students’ oral proficiency through instruction in facilitating conversation and the discussion of culture-based texts. Prerequisite: FR 23202 or equivalent.

33212 French Composition (3)
A course designed to develop writing and reading skills, and in particular to prepare students to read and write about French literature. Prerequisite: FR 23202 or equivalent.

33213 Intensive French Grammar (3)
Comprehensive, in-depth review of French grammar. Students should already have a grounding in spoken and written French. Prerequisite: FR 33211 and FR 33212 or permission.

33215 French Phonetics and Diction (3)
Study of sounds of French language and their relationship to spelling; application of international phonetic alphabet to French. Study augmented by readings. Prerequisite: FR 33211 or permission.

33231 Translation Practice: French (1)
Translation practice with French texts using principles and techniques learned in the lecture class. To be taken concurrently with MCLS 30230. Corequisite: MCLS 30230.

33240 Conversation for Business and Special Purposes: French (3)
Introduction to the special vocabulary of business and other special subject areas; introduces the concept of language for special purposes and emphasizes the use of special vocabulary in conversations in business and other settings. Prerequisite: FR 23201.

33301 French Play Production (3)
Intensive analysis of one or two plays with emphasis on text and problems involved in staging them; public performance in French of one or two plays. Prerequisite: FR 23201 or permission.

33335 Introduction to French Theatre (3)
Evolution of French dramatic literature from the Middle Ages to the present. Readings of representative works with lectures, analyses. In French. Prerequisite: FR 33212 or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

33336 Introduction to French Poetry (3)
Evolution of French poetry from the Middle Ages to the present. Readings of representative works with lectures, analyses. In French. Prerequisite: FR 33212 or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

33337 Introduction to the French Novel (3)
Evolution of French novel from 17th century to present. Readings of representative major works, lectures, analyses. In French. Prerequisite: FR 33212 or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

33421 French Civilization (3)
A survey of French history and culture from its beginnings to World War II. Taught in French. Prerequisite: FR 33212 or permission.

43091 French Seminar (3)
Topic to be announced. Prerequisite: One course from FR 33335, 33336, 33337.

43093 Variable Title Workshop in French (1-6)
Worksheets individually designed to provide instruction and training in specific areas of French studies. S/U grading. Prerequisite: Departmental permission.

43096 Individual Investigation (1-3)
(Repeatable for a total of 6 hours) Allows the advanced, serious student to carry out research study project on French literature, language or culture. Prior approval of supervising faculty members, department required. IP grade permissible. Prerequisite: 6 hours upper-division French literature; permission.

43213 French Composition—Advanced (3)
French stylistics developed by analyses of literary extracts and practice in written expression. Prerequisite: FR 33212.

43216 Contemporary French Culture (3)
A study of selected sociological, political, cultural or economic issues in the contemporary Francophone world. Prerequisite: 6 hours from 30000-level French courses.

43230 Advanced Translation Practice: French (3)
Theory and practice course that discusses translation theory and emphasizes French-to-English translation of selected texts in business, technology, medicine and law. Prerequisite: FR 33231. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

43240 Business and Special Texts: French (3)
Survey of the typical text types of business in the French culture and language. Practice sessions focus on reading and understanding specialized texts and on the translation and composition of selected special texts in French. Prerequisite: FR 33212.

*Courses offered only at Regional Campuses.
Course Descriptions

FR | GEOG

43352 Montaigne and Rabelais (3)
Thematic and stylistic study of the essays of Montaigne or the novels of Rabelais. Prerequisite: 6 semester hours from 33330-level.

43363 Eighteenth-Century French Novel (3)
Development of the French novel during the 18th century. Reading of selected novelistic works by Prevost, Voltaire, Diderot, Rousseau and others. Prerequisite: 6 semester hours from the 33330-level.

43366 Studies in Nineteenth-Century French Literature (3)
Study of selected topics in 19th century French Literature. Prerequisite: 6 semester hours from the 33330-level.

43368 The Twentieth-Century French Novel (3)
Studies of selected 20th-century French novels, with detailed study of the novel of one or several major writers or movements. Prerequisite: 6 semester hours from the 33330-level.

43369 Twentieth-Century French Poetry (3)
A study of selected poetry of Apollinaire, Breton, Mansour, Eluard, Michaux, Char, Reverdy, Ponge, Guillevic, Jabes, Bonnefoy, Dupin, Alpiach and others. Emphasis is placed on the relationship between poetry and the visual arts in the 20th century. Prerequisite: 6 semester hours from the FR 33330 level.

43370 The Twentieth Century French Theatre (3)
Studies in French drama since 1900. Prerequisite: 6 semester hours from the 33330-level.

43380 Francophone Literature (3)
A study of writers, movements or works representative of French-speaking national cultures outside of France. May be repeated for credit as course content changes. Prerequisite: 6 semester hours from the FR 33330 level.

17063 World Geography (3)
Examination and comparison of geographic conditions in different regions of the world. Stresses interrelationships between people and resources within and between regions and countries. Prerequisite: None. This course may be used to satisfy the LERs and the university Diversity Requirement.

17064 Geography of the United States and Canada (3)
Analysis of the spatial patterns of significant human and physical characteristics and interpretation of the major regions within the two nations. Prerequisite: None. This course may be used to satisfy the LERs and the university Diversity Requirement.

20977 Survey of Geography (1)
Introduces geography as a professional discipline; presents faculty and their research interests. S/U grading. Prerequisite: Geography major or minor.

21062 Physical Geography (3)
World survey of development and distribution of all facets of physical environment, including atmosphere, weather and climate, vegetation, soils and landforms, emphasizing man's use. Prerequisite: None.

29160 Introduction to Maps and Map Analysis (3)
The map as a means to convey environmental information is stressed; basic techniques for map reading and analysis are introduced. Prerequisite: GEOG 10160 or Geography major status.

31062 Fundamentals of Meteorology (3)
Analysis of weather elements emphasizing energy exchanges and controls, and atmospheric circulation. Methods of weather prediction and man's modification of weather are highlighted. Prerequisite: None.

31064 Principles of Climatology (3)
A study of the physical processes causing the distribution of world climates, focus on local and urban climates, climatic change and societal impacts of climate. Prerequisite: GEOG 31062.

31070 Population and the Environment (3)
This course examines the interrelations of population growth, resource depletion and the environment from a geographic perspective, including the principal themes of space and place. Prerequisite: None.

31080 Geography of Wine (3)
Examines the physical environment of viticulture including climate, soil and farm practices; the cultural tradition of wine making, consumption and trade; and regional production styles. Prerequisite: None.

32061 Cultural Geography (3)
To study in a comparative, systematic manner the geographic patterns and processes of diverse cultures of humanity. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

32088 Politics and Place (3)
Spatial aspects of political behavior as manifested in boundary changes, the sizes of states, interstate relations and spatial organization. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

35065 Geography of Transportation and Spatial Interaction (3)
Spatial interaction. Study of flows, networks and integrated systems at different spatial scales. Transport and economic development. Models and methods of analysis. Prerequisite: None.

36065 Cities and Urbanization (3)
Course examines what is a city, how it has evolved over time under changing economic conditions, what is its internal structure and how this has been influenced by transportation developments. Special attention is paid to the causes and consequences of social diversity within the city and how cities differ throughout the world. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

37010 Geography of Ohio (3)
Study of Ohio as a distinctive region, its environment and the varied characteristics of its population, its historical geographic development, and contemporary patterns and problems. Prerequisite: Junior standing.

37040 Geography of Africa (3)
This course deals with the complex geographical and cultural elements in Africa. It demonstrates how the interaction of these elements has affected Africa’s linkages to other continents, especially North America. Furthermore, it discusses how this diversity has affected Africa’s economic development and political evolution. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

37050 Geography of Russia and the Commonwealth of Independent States (3)
Study of the physical, economical, political and cultural geography of Russia, Ukraine, Central Asia and other components of the former Soviet Union. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

10160 Introduction to Geography (3)
Emphasizes processes which generate diverse global human and environmental patterns. Interaction of geographical elements as expressed in spatial organization of cities, land use, and cultural and political regions. Prerequisite: None. This course may be used to satisfy the LERs.

29160 Introduction to Maps and Map Analysis (3)
The map as a means to convey environmental information is stressed; basic techniques for map reading and analysis are introduced. Prerequisite: GEOG 10160 or Geography major status.

32061 Cultural Geography (3)
To study in a comparative, systematic manner the geographic patterns and processes of diverse cultures of humanity. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

32088 Politics and Place (3)
Spatial aspects of political behavior as manifested in boundary changes, the sizes of states, interstate relations and spatial organization. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

35065 Geography of Transportation and Spatial Interaction (3)
Spatial interaction. Study of flows, networks and integrated systems at different spatial scales. Transport and economic development. Models and methods of analysis. Prerequisite: None.

36065 Cities and Urbanization (3)
Course examines what is a city, how it has evolved over time under changing economic conditions, what is its internal structure and how this has been influenced by transportation developments. Special attention is paid to the causes and consequences of social diversity within the city and how cities differ throughout the world. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

37010 Geography of Ohio (3)
Study of Ohio as a distinctive region, its environment and the varied characteristics of its population, its historical geographic development, and contemporary patterns and problems. Prerequisite: Junior standing.

37040 Geography of Africa (3)
This course deals with the complex geographical and cultural elements in Africa. It demonstrates how the interaction of these elements has affected Africa’s linkages to other continents, especially North America. Furthermore, it discusses how this diversity has affected Africa’s economic development and political evolution. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

37050 Geography of Russia and the Commonwealth of Independent States (3)
Study of the physical, economical, political and cultural geography of Russia, Ukraine, Central Asia and other components of the former Soviet Union. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.
37066 Geography of Europe (3)
Examination of the cultural, economic, political and physical geography of Western and Eastern Europe (excluding the former U.S.S.R.). Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

37070 Geography of East and Southeast Asia (3)
Analysis of the physical and cultural geography of east and Southeast Asia, extending from Japan and China to Burma and Indonesia. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

37079 Geography of South Asia (3)
Physical and cultural geography of South Asian region including India, Pakistan, Bangladesh, Nepal, Bhutan and the Maldives Islands. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

37084 Geography of South America (3)
Overview of region and survey of each country emphasizes systematic similarities and differences in physical environment, culture, economic development, population, land use, politics and history. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

37085 Geography of Central America and Mexico (3)
Geographic analysis and interpretation of major regions of Central America, Mexico and the Caribbean. Evaluation of physical environments and development problems. Prerequisite: None. This course may be used to satisfy the university Diversity Requirement.

39002 Statistical Methods in Geography (3)
Probability theory, spatial statistics, application of theoretical curves to geographic distributions, estimation procedures and testing of hypotheses. Spatial sampling, methods of areal association, regression analysis. Prerequisite: MATH 11011 or equivalent.

39161 Introduction to Cartography (3)
Map making from compilation through reproduction; development of skills in drafting, generalization, symbolization, design; familiarization with relief representation, statistical maps and map projections. Prerequisites: GEOG 29160, MATH 10041 or permission. Must take GEOG 39162 concurrently.

39162 Introduction to Cartography Laboratory (1)
Practical experience in map making. Actual map compilation design, drafting and reproduction is stressed. Prerequisite: GEOG 39161 concurrently. Special fee: $25—subject to change.

40093 Variable Title Workshop in Geography (1-6)
S/A grading. Prerequisite: Permission.

40191 Seminar in Geography (3)
(Repeatable for a total of 6 credit hours) Advanced study of the historical development of geography and of contemporary issues in the field. Emphasis on methods of geographic investigation and presentation of results. Prerequisite: At least 24 hours in geography or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

40195 Special Topics in Geography (1-3)
Prerequisite: Permission.

40996 Individual Investigation in Geography (1-3)
Individual undergraduate investigation or research on specific geographical problems. IP grade permissible. Prerequisite: Permission.

41050 Polar and Alpine Environments (3)
The geographic features of the Earth’s cold treeless regions are examined including climate, soils, glaciers, permafrost, plant and animal life, and human activities. Prerequisite: GEOG 21062 or permission.

41062 Advanced Physical Geography (3)
Advanced systematic analysis of the elements of physical geography. Specific analytical methodologies and their application to physical geography are also discussed. Prerequisite: GEOG 21062.

41073 Conservation of Natural Resources (3)
Evaluation of past and current problems associated with the management of natural resources and the environments associated with their utilization. Prerequisite: An introductory geography course or permission of the instructor.

41074 Resource Geography (3)
Culture-technology and distance in relation to resource adequacy and management concepts for societal decisions about common property and situations with external economies. Prerequisite: Junior standing or permission.

41082 Geography of Soils (3)
An edaphological approach to soils including morphology, formation, classification, geographical distribution and utilization. Fieldwork required. Prerequisite: GEOG 21062 or permission.

41265 Urban Climatology (3)
A study of the urban atmosphere through historical and current literature and field projects. Elements studied include temperature, radiation, moisture, wind and pollution. Prerequisite: GEOG 31062 or permission.

42052 Medical Geography (3)
Geographic patterns of morbidity and mortality in the past and the present; diffusion of diseases and medicine; health in Third World emphasized. Prerequisite: GEOG 32061 or permission.

42064 Historical Geography of the United States and Canada (3)
Regional origins and growth, evolution of spatial organization, changing evaluation of environments, and past geographies in United States and Canada from pre-Colonial times on. Prerequisite: GEOG 17064 or permission.

44010 Advanced Economic Geography (3)
Geographic analysis of economic growth models, territorial production complexes, input-output models and regional distinctions in the global economy. Prerequisite: GEOG 34070 or permission.

44070 Spatial Analysis and Location Theory (3)
Classical theories for location of economic activities and contemporary approach of spatial analysis, spatial organization of economic systems, behavioral models in economic geography, spatial allocation problems.

45085 Urban Transportation (3)
Spatial analysis of urban transportation, travel behavior, modes. Trip generation and distribution models, transportation planning, urban transportation problems. Prerequisite: GEOG 36065 or permission.

46035 Marketing Geography (3)
Study of spatial arrangements and functions of market centers and the internal spatial patterns of retail stores, location analysis and site selection. (Practicum required.) Prerequisite: GEOG 36065.

46065 Advanced Urban Geography (3)
Investigation of advanced concepts pertaining to the spatial structure of urban areas. Prerequisite: GEOG 36065 or permission.

46070 Urban and Regional Planning (3)
Analysis of geographical aspects of planning for cities and regions. Prerequisite: GEOG 36065 or permission.
46092  Internship in Geography and Planning (3-6)  Preprofessional work experience in local, regional and environmental planning agencies and in business designed to utilize and develop academic skills. Prerequisite: Permission.

49006  Spatial Programming (3)  Introduces the student to a variety of computer programming environments suitable for analysis of spatial problems. Prerequisite: Basic Statistics, GEOG 39002 or permission.

49070  Geographic Information Science (3)  Introduction to theories and methods for geographic data processing, including data capture and input, data storage and management, and data analysis and displays. Emphasis is on laboratory exercises using GIS software packages for real world applications. Prerequisites: At least 6 hours of geography.

49080  Advanced Geographic Information Science (3)  Advanced theories and techniques for handling geographic information systems, including 2D and 3D processing of geographic information, detection and analysis of geographic patterns, 2D and 3D mapping of geographic information, modeling of geographic processes, and an overview of GIS programming tools. Prerequisite: GEOG 49070 or permission.

49162  Advanced Cartography (3)  Study of the design and production of complex maps. Symbalization, composition and color utilization. Prerequisites: GEOG 39161, must take GEOG 49163 concurrently.

49163  Advanced Cartography Lab (1)  Practical experience in the techniques of production and reproduction of maps. Prerequisite: Must take GEOG 49162 concurrently. Special fee: $35—subject to change.

49165  GeoMapping (3)  Information theory, data collection, automated mapping systems. Representation of surfaces, lines and points, geographic data structures and applications. Mapping by line printer, interactive terminals. Prerequisite: GEOG 39002 or 39161 or permission.

49198  Research in Cartography and GIS (1-3)  (Repeated registration permitted) Individual research on a topic in cartography or GIS under the direction of any faculty member. IP grade permissible. Prerequisite: Permission.

49210  Earth Imagery (3)  The student following this course will be introduced to the full variety of methods of imaging the Earth for environmental analysis, including satellite methods. Prerequisite: GEOG 29160.

49211  Earth Imagery Laboratory (1)  This course will support the lecture course. Earth Imagery, by giving the student exposure to the methods of manual measurement and interpretation of images. Prerequisite: Must take GEOG 49210 concurrently.

49230  Remote Sensing (3)  (Cross-listed with GEOL 42030) Emphasis on computer analysis of LANDSAT data using multivariate statistical tools. Introduces statistical methods and use of computer. Problems in earth science are stressed. Prerequisite: Permission.

49480  Field Study in Geography (3)  Present methods of planning and structuring field studies, the techniques of mapping and data gathering in the analysis of local field problems. Prerequisite: Geography major or permission.

49482  Field Study of Selected Rural and Urban Areas (5)  Field studies of rural and urban regional problems in the United States and Canada. One month or more in field; written report on findings. Limited to 15 students. Students pay for own board and laboratory fee to university. Special fee on actual cost basis. Prerequisite: Permission.

49890  Applied Geography (3)  Detailed investigation of application of geographic techniques and knowledge toward problem solving in the “real world.” Prerequisite: 10 undergraduate geography hours.

GEOL

11040  Earth Dynamics (3)  Application of basic concepts and theories of Earth science to the interpretation of Earth materials and dynamic processes (erosion, sedimentation, volcanism, continental drift). Prerequisite: None. This course may be used to satisfy the LERs.

11041  Earth Dynamics Lab (1)  Laboratory study of minerals, rocks, aerial photos, topographic maps and geologic maps. Pre- or corequisite: GEOG 11040. This course may be used to satisfy the LERs.

11042  Earth History (3)  Application of basic concepts and theories of Earth science to the interpretation of the origin and evolution of the solar system, the Earth, the structures of the crust and life. Prerequisite: None. This course may be used to satisfy the LERs.

11043  Earth History Lab (1)  Laboratory study of fossils, sedimentary rocks, and geologic maps in the framework of interpreting Earth history. Pre- or corequisite: GEOG 11042. This course may be used to satisfy the LERs.

21061  Glacial Geology (3)  Origin and movement of glaciers, glacial erosion, transport, nature of glacial drift, Pleistocene stratigraphy, periglacial phenomena and climatic oscillations. Field trips. Lecture 3 hours weekly. Prerequisite: GEOG 11041 or permission.

21062  Environmental Geology (3)  Application of geology to environmental problems including natural resource extraction, water supply, pollution, waste disposal, landslides, floods and land use planning. Field trips. Lecture 3 hours weekly. Prerequisite: None. This course may be used to satisfy the LERs.

21080  Oceanography (3)  Introduction to geological, physical, chemical and biological nature of the oceans. Lecture 3 hours weekly. Prerequisite: None. This course may be used to satisfy the LERs.

22063  Mineralogy (4)  Occurrence, associations, characteristics, crystallography and crystal chemistry of common minerals. Laboratory identification emphasizing physical properties. Lecture 3 hours, lab 2 hours weekly. Required field trip. Prerequisites: GEOG 11040, 11041; pre- or corequisite: CHEM 10060 or permission.

31070  Petrology (4)  Occurrence and origin of igneous, sedimentary and metamorphic rocks. Laboratory identification, description and classification of hand specimens. Lecture 3 hours, lab 2 hours weekly. Required field trip. Prerequisites: GEOG 11040, 11041; pre- or corequisite: CHEM 10060 or permission.

31080  Structural Geology (4)  Mechanical principles of rock deformation. Structures in sedimentary, igneous and metamorphic rocks. Lecture 3 hours, lab 2 hours weekly. Required field trip. Prerequisites: GEOG 31070 and MATH 12001.
GEOL 31070, 31080 or permission.

Distribution of natural regions and geologic features of United States. Geologic concepts illustrated by North American fossils. Lecture 3 hours, lab 2 hours weekly. Required field trip. Prerequisites: GEOL 11042, 11043 and either BSCI 20560 or 10120. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

GEOL 11042, 11043 and either BSCI 20560 or 10120. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

GEOL 32066 Geomorphology (4)
Earth's surface features as functions of geological structures, processes and time. Landscape analysis using topographic maps and some stereographic aerial photos. Lecture 3 hours, lab 2 hours weekly. Required field trip. Prerequisites: GEOL 11040 and 11041 or permission.

GEOL 40097 All About Dinosaurs (3)
Dinosaurs (and some relatives) and their world, emphasizing how to interpret evidence concerning their history, biology and evolutionary relationships. Does not satisfy requirements of geology major. Prerequisite: None.

GEOL 41080 Tectonics and Orogeny (3)
Introduces advanced concepts of plate tectonics and mountain building with emphasis on Western United States and Appalachians. Required field trip to New England. Prerequisite: GEOL 31080.

GEOL 41092 Summer Field Camp (6)
Five weeks devoted to geologic mapping and solving structural and stratigraphic problems in Black Hills, S.D. Prerequisites: GEOL 31070, 31080. Special fee on actual cost basis.

GEOL 42069 Hydrogeochemistry (3)
Processes and evolution of the chemical composition of water in the natural hydrologic cycle. Methods of hydrochemical interpretation applied to groundwater and pollution problems. Lecture 3 hours weekly. Prerequisites: 10 hours of chemistry.

GEOL 42073 Well Logging (3)
Application of basic geophysical tools to interpretation of subsurface rocks and fluids, especially oil and gas. Prerequisite: GEOL 31070.

GEOL 42078 Engineering Geology (4)
Engineering properties of soils and rocks. Site evaluation for building foundations, dams, tunnels and highways. Slope stability. Lecture 3 hours and lab 2 hours weekly. Prerequisite: Geology majors with junior standing.

GERMAN (GER)
For placement and credit in foreign language courses see Arts and Sciences—Foreign Language Requirement—Placement and Credit.

The following course is taught in English and does not presuppose a prepa ration in the language in question: German 31601.
Course Descriptions

11201 Elementary German I (4)
An introduction to the German language in the context of the cultures of German-speaking lands. Prerequisite: None. This course may be used to satisfy the LERs.

11202 Elementary German II (4)
A continuation of the introduction to the German language in the context of the cultures of German-speaking lands. Prerequisite: GER 11201 or equivalent. This course may be used to satisfy the LERs.

21201 Intermediate German I (3)
Continued development of speaking, listening, reading and writing skills using a variety of cultural materials. Prerequisite: GER 11202 or equivalent.

21202 Intermediate German II (3)
Continuation of GER 21201. Prerequisite: GER 21201 or equivalent.

21213 Business German (3)
An introduction to the language used in German business and economics. Investigation and discussion of major aspects of the German economy without teaching business-economics theory. Prerequisite: GER 21202.

23531 Yiddish Short Story (3)
Introduction to Yiddish short stories in English translation with a special emphasis on works by Aleichem, Peretz and Mendele. Prerequisite: Sophomore standing or permission.

23532 Yiddish Drama (3)
Examines representative Yiddish dramas which reflect the Yiddish-speaking society. They further depict the religious and political conflicts of this society with its Gentile neighbors. Prerequisite: Sophomore standing or permission.

31095 Special Topics (1-3)
Topic announced in Schedule of Classes. May be repeated when content varies. Prerequisite: Junior standing or permission.

31201 Intensive German Grammar (3)
A systematic approach to German grammar and syntax. Prerequisite: GER 21202 or permission.

31211 German Composition and Conversation (3)
Grammar review and practice in writing and speaking German. Prerequisite: GER 21202 and 31201 or permission.

31215 German Phonetics and Diction (3)
Study of the German sound system with emphasis on pronunciation and intonation. Reading and performance of a series of skits and short plays. Prerequisite: GER 21202 or permission.

31231 Translation Practice: German I (1)
Translation practice with German texts using principles and techniques learned in the lecture class. To be taken concurrently with MCLS 30230. Corequisite: MCLS 30230.

31240 Conversation for Business and Special Purposes: German (3)
Introduction to the special vocabulary of business and other special subject areas; introduces the concept of language for special purposes and emphasizes the use of special vocabulary in conversations in business and other settings. Prerequisite: GER 31211.

31241 German Civilization (3)
A survey of German history and intellectual life to 1918; taught in German. Prerequisite: Six hours upper-division German courses.

31501 German Literature in English Translation (3)
Reading and analysis of major works of German literature in English translation. No knowledge of German required. May not be counted toward the major or minor. Prerequisite: Junior standing or permission.

41095 Special Topics (1-4)
(Repeatability registration permitted when content varies) Topic announced in Schedule of Classes. Prerequisite: Senior standing or permission.

41096 Individual Investigation (1-3)
Independent investigation of problems in German language or literature. IP grade permissible. Prerequisites: 6 hours of upper-division German and permission of the department chairperson.

41211 Advanced German Composition and Conversation (3)
Advanced practice in speaking and writing German. Prerequisite: GER 31211 or permission.

41216 Contemporary German Culture (3)
A study of selected sociological, political, cultural, and economic issues in contemporary German-speaking countries, using readings, films and legal documents as the basis for discussions. Taught in German. Prerequisite: Six hours upper-division German courses. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

41230 Advanced Translation Practice: German I (3)
Theory and practice course that discusses translation theory and emphasizes German-to-English translation of selected texts in business, technology, medicine and law. Prerequisite: GER 31231. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

41232 German Literature by Women (3)
Survey of the typical text types of business in the German culture and language. Practice sessions focus on reading and understanding specialized texts, and on the translation and composition of selected special texts in German. Prerequisite: GER 31211.

41330 Twentieth-Century German Authors (3)
A survey of the major movements and authors of the 20th century. Prerequisite: 6 hours of upper-division German literature or culture courses. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

41331 History of German Literature (4)
History of the development of German literature from 750 to the present. Prerequisite: 6 hours upper-division German literature or culture courses.

41332 German Literature by Women (3)
Readings of works by female German authors. Taught in English; German majors/minors will read texts in German. Prerequisite: Junior standing or permission.

41334 The German Novella (3)
Development of the German novella from the 18th century to the present. Readings of major works, lectures, analyses; taught in German. Prerequisite: 6 hours upper-division German literature or culture courses.

41335 German Drama (3)
An examination of the development of the drama in Germany, Austria and Switzerland. Taught in German. Prerequisite: 6 hours of upper-division German courses.
### Course Descriptions

**GERONTOLOGY (GERO)**

**14029 Introduction to Gerontology (3)**
An interdisciplinary approach to the aging process. Experiences with older members of the community are included. Prerequisite: None.

**41083 Variable Topic Workshop in Gerontology (1-3)**
Workshop setting dealing with a topic or topics in aging. Learning experiences are provided in a wide range of areas. S/U grading. Prerequisite: None.

**40393 Variable Title Workshop (1-6)**
Workshops individually designed to provide instruction and training in specific areas of Greek studies. S/U grading. Prerequisite: Department permission.

**44096 Individual Investigation (1-3)**
Investigation of problems in Greek literature or linguistics. IP grade permissible. Prerequisite: Department permission.

**GREEK (GRE)**

**41338 German Poetry (3)**
An examination of the nature of poetry with particular attention to its development in Germany, Austria and Switzerland. Taught in German. Prerequisite: 6 hours of upper-division German courses.

**41365 Classical German Literature (3)**
Reading and critical analysis of major works of the Classical Age with emphasis on Goethe. Prerequisite: 6 hours upper-division German literature or culture courses. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

**41399 Research Project in German Literature (3)**
Thesis or other independent study. IP grade permissible. Prerequisite: 6 hours at the 40000-level.

**41731 Survey of German Cinema (3)**
A survey of major contributions to the German cinema from the beginnings to the present; taught in German. Prerequisite: 6 hours of upper-division German courses.

**14029 Introduction to Gerontology (3)**
An interdisciplinary approach to the aging process. Experiences with older members of the community are included. Prerequisite: None.

**41083 Variable Topic Workshop in Gerontology (1-3)**
Workshop setting dealing with a topic or topics in aging. Learning experiences are provided in a wide range of areas. S/U grading. Prerequisite: None.

**41095 Special Topics in Gerontology (1-4)**
Discussion of a major topic within a specific field of gerontology. Prerequisite: None.

**41096 Individual Investigation (1-3)**
Independent study in gerontology. Prerequisite: Written permission from instructor.

**41731 Survey of German Cinema (3)**
A survey of major contributions to the German cinema from the beginnings to the present; taught in German. Prerequisite: 6 hours of upper-division German courses.

**14029 Introduction to Gerontology (3)**
An interdisciplinary approach to the aging process. Experiences with older members of the community are included. Prerequisite: None.

**41083 Variable Topic Workshop in Gerontology (1-3)**
Workshop setting dealing with a topic or topics in aging. Learning experiences are provided in a wide range of areas. S/U grading. Prerequisite: None.

**41095 Special Topics in Gerontology (1-4)**
Discussion of a major topic within a specific field of gerontology. Prerequisite: None.

**41096 Individual Investigation (1-3)**
Independent study in gerontology. Prerequisite: Written permission from instructor.

**44350 Advanced Prose Authors (3)**
Selections from major prose authors. Emphasis on Attic orators and the contributions of rhetoric; also readings from ancient Greek historians, especially Thucydides. Prerequisite: GRE 24202.

**44351 New Testament in Greek (3)**
Selected New Testament readings in the original language, including the Gospels and the letters of Paul. Prerequisite: GRE 24202.

**44370 Plato: Apology and Phaedo (3)**
Readings in the original Greek of Plato’s dialogues centering on the trial, conviction and death of Socrates. Prerequisite: GRE 24202.

**44371 Homer (3)**
Selections from the Iliad or Odyssey studied from a literary and grammatical standpoint. Prerequisite: GRE 24202 or permission.

**14201 Elementary Classical Greek I (4)**
An introduction to the classical Greek language in the context of ancient Greek culture. Prerequisite: None. This course may be used to satisfy the LERs.

**14202 Elementary Classical Greek II (4)**
A continuation of the introduction to the classical Greek language in the context of ancient Greek culture. Prerequisite: GRE 14201 or equivalent. This course may be used to satisfy the LERs.

**14205 Elementary Modern Greek I (4)**
An introduction to the modern Greek language in the context of Greek culture. Prerequisite: None. This course may be used to satisfy the LERs.

**14206 Elementary Modern Greek II (4)**
A continuation of the introduction to the modern Greek language in the context of Greek culture. Prerequisite: GRE 14205 or equivalent. This course may be used to satisfy the LERs.

**24201 Intermediate Classical Greek I: Readings (3)**
Excerpts from classical Greek literature with emphasis on translation into English. Prerequisite: GRE 14202 or equivalent.

**24202 Intermediate Classical Greek II: Readings (3)**
Excerpts from classical Greek literature with emphasis on both prose (e.g., Plato) and poetry (e.g., Euripides). Prerequisite: GRE 24201 or equivalent.

**24208 Intermediate Modern Greek I (3)**
Continued development of speaking, listening, reading and writing skills using a variety of cultural materials. Prerequisite: GRE 14206 or equivalent.

**24209 Intermediate Modern Greek II (3)**
Advanced readings in prose and poetry, emphasizing such 20th-century demotic authors as Nikos Kazantzakis, Elias Venezis, George Seferis and Constantine Cavafy. Prerequisite: GRE 24208 or equivalent.

**41338 German Poetry (3)**
An examination of the nature of poetry with particular attention to its development in Germany, Austria and Switzerland. Taught in German. Prerequisite: 6 hours of upper-division German courses.

**41365 Classical German Literature (3)**
Reading and critical analysis of major works of the Classical Age with emphasis on Goethe. Prerequisite: 6 hours upper-division German literature or culture courses. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

**41399 Research Project in German Literature (3)**
Thesis or other independent study. IP grade permissible. Prerequisite: 6 hours at the 40000-level.

**41731 Survey of German Cinema (3)**
A survey of major contributions to the German cinema from the beginnings to the present; taught in German. Prerequisite: 6 hours of upper-division German courses.

**14029 Introduction to Gerontology (3)**
An interdisciplinary approach to the aging process. Experiences with older members of the community are included. Prerequisite: None.

**41083 Variable Topic Workshop in Gerontology (1-3)**
Workshop setting dealing with a topic or topics in aging. Learning experiences are provided in a wide range of areas. S/U grading. Prerequisite: None.

**41095 Special Topics in Gerontology (1-4)**
Discussion of a major topic within a specific field of gerontology. Prerequisite: None.

**41096 Individual Investigation (1-3)**
Independent study in gerontology. Prerequisite: Written permission from instructor.

**44030 Adult Development and Aging (3)**
Examines developmental processes across adulthood. Evaluation of theoretical models and scientific literature. Prerequisite: human development and family studies majors only or permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

**44031 Social Policy and Community Resources for Older Adults (3)**
Overview of national, state and local public policy affecting older adults. Legislation, funding, planning and the service delivery system are examined. Prerequisite: GER 44030.

*Courses offered only at Regional Campuses.*
### 14020 Medical Terminology (3)
Identification of the meaning of various roots and terms and combining forms that are components of medical words, including anatomical, physiological and pathological therapeutic terminology, and implications for health literacy. Prerequisite: None.

### 20000 Health Education for Early Childhood Educators (3)
Investigate current health issues relevant to children in preschool environments/primary grades, and identify educational strategies to increase student health knowledge, foster positive health attitudes, and promote healthy behaviors. Prerequisite: None.

### 21030 Introduction to Health Education (3)
This course introduces the student to the health education profession. Roles and responsibilities of health educators in a variety of occupational settings are described. Prerequisite: None.

### 21050 Health Behavior (3)
Application of various attitude and behavior models to health and illness behavior in order to develop a framework for educational intervention. This course includes 5 field/clinical hours. Prerequisites: None.

### 22565 Health Data Analysis and Presentation (3)
Analysis, interpretation and presentation of data utilized in epidemiological surveillance and evaluation. Application of statistical and graphic computer programs in this area. Prerequisite: None.

### 23542 Methods and Applications of Health Education (5)
Analysis observation, demonstration and experience in the teaching-learning process utilizing methods, materials and resources appropriate to the preparation of professional health educators. This course includes 50 field/clinical hours. Prerequisites: HED 11570 and 11590. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

### 2544 Human Sexuality (3)
A study of the role and meaning of human sexuality throughout the life cycle for self and society. Prerequisite: None.

### 26045 Marketing in Health Education (3)
Examines the basic elements of marketing processes as they relate to promoting health in communities. Emphasis on application of marketing/planning concepts and practices for service providers involved with health education. Prerequisite: None.

### 2575 Consumer Health (3)
An overview of the health marketplace including health products, services, financing, promotional practices and consumer protection laws. Prerequisite: None.

### 30450 Program Planning and Evaluation in Health Education (3)
Provides students with the knowledge and skills to assess health resources and needs, develop health programs to meet specific needs in particular populations and determine appropriate measures to evaluate the effectiveness of health programs. Prerequisites: HED 11590 and 32542.

### 3060 Small Group Processes (2)
(Cross-listed with CHDS 37800) Group processes in human relationships, including techniques of democratic leadership and effective group membership. This course includes 25 field/clinical hours. Prerequisite: None.

### 3064 Health Education for Elementary Teachers (3)
Investigates current health issues relevant to children K-8; educational strategies to motivate positive behaviors, and appropriate materials, resources and media. Includes development of resource unit. Prerequisite: Junior standing.

### 30648 Emergency Medical Training (5)
Basic immediate care procedures for victims of acute illnesses and accidents. Course does not conform to EMT-B National Standard Curriculum as adopted by the Ohio Department of Public Safety, Division of EMS. Prerequisite: None; controlled registration. Special fee: $4/cr. hr.—subject to change.

### 30093 Variable Title Workshop in Health Education and Promotion (1-3)
Discussion of major issues in health and safety education. Content, emphasis and prerequisites vary depending on workshop. S/U grading. Prerequisites: HED 11590 and controlled registration.

### 30661 Environmental Health (3)
Effects on human health of overpopulation and various sources of energy and the resultant environmental pollutants. Consideration of alternatives and solutions. Prerequisite: HED 11570.

### 3254 Health Counseling (3)
Techniques of counseling applied to health education. Individual and group approaches relative to personal, family and societal health issues. This course includes 20 field/clinical hours. Prerequisite: None.

### 32558 Student Teaching in Health Education (9)
Provides a 10-week student teaching experience. See student teaching section of catalog. Prerequisite: Eligibility for admission to student teaching.

### 32575 Health and Learning: Strategies for Students and Teachers (3)
Focus on health issues/education/environment policy and practice strategies to respond to threats confronting students utilizing a coordinated school/community strategy to promote health to improve academic outcomes. CPR and first aid certification required for completion of course. Prerequisite: Admission to advanced study.

### 32580 Professional Issues in Health Education (2)
Career preparation through investigation of professional role, standards, issues in work settings. Prerequisites: HED 44095.

### 4025 Women’s Health Issues (3)
Traditional and feminist analysis of women’s health issues and the health educational responses to those issues. Prerequisite: None.

### 4092 Internship in Community Health Education (12)
Participation for one academic semester in the health education activities of an approved agency, organization or industry. Controlled registration. IP grade permissible. Prerequisites: Senior standing.

### 4095 Special Topics: Health Education and Promotion (1-3)
Selected topics related to public health issues facing professionals in communities, schools, health care settings and the workplace. Prerequisite: None.

### 4096 Individual Investigation in Health Education and Promotion (1-3)
Independent reading and/or research directed by a HED faculty member. S/U grading; IP permissible. Prerequisite: Permission.

### 44045 Administration of School Health Programs (3)
Organizational design and administration of a comprehensive school health program including health services, instruction and environment. This course includes 25 field/clinical hours. CPR and first aid certification required for completion of course. Prerequisite: Admission to advanced study.
44544 Sexual Health Promotion Programs (3)
This course prepares the student to develop, imple-
ment and evaluate sexuality education programs in
school and community settings. Prerequisite: HED
32544 or equivalent.

44550 Drug Abuse and Violence Prevention (3)
Drug abuse and violence prevention from theoreti-
cal, philosophical, empirical and practical perspec-
tives. Application of etiological theories to planning
prevention programs. Prerequisite: HED 32530 or
equivalent.

46052 Stress: Recognition and Management (2)
An examination of stress, its role as a predisposing
factor for various illnesses and diseases, types of
stressors, the body’s reaction to stress, and tech-
niques for recognizing, preventing and reducing
stress. Prerequisite: None.

46057 Advanced Human Sexuality (3)
Selected aspects of human sexuality; history, cross-
cultural perspectives, medical/surgical conditions, and
sex therapy and counseling. Prerequisite: HED 32544.

46060 Death Education (3)
Issues of living with the human experiences of
death and facilitating understanding with selected
client systems in schools and community agencies.
Prerequisites: HED 11570 and PSYC 11762.

46070 Health Related Aspects of Aging (3)
Theories of biological aging and identification of major
health hazards, age-related diseases and age changes,
their prevention and control. The health-care delivery
system for the elderly. Prerequisite: None.

47070 AIDS: Issues, Education and Prevention (3)
This course provides an extensive overview of the
Human Immunodeficiency Virus epidemic as it has
developed and exists today. A particular emphasis
will be given to AIDS education and prevention
issues and strategies.

47091 Current Issues in Health Education and
Promotion (1-3)
Public health issues facing professionals in commu-
nities, schools, health care settings and the work-
site. Prerequisite: Junior or senior standing.

48092 Field Experience in Health Education and
Promotion (1-3)
Observation and participation in educational and pro-
motional activities of a public health agency, school
or health-care facility. Joint university-agency super-
vision. S/U grading; IP permissible. Prerequisite: Per-
mission.

49025 Inquiry Seminar into Professional
Practice (3)
Interdisciplinary inquiry into teaching as a profes-
sional practice in health education; emphasis on
teacher as disciplined investigator. Final semester of
four. Utilization or teaching/learning technology.
Prerequisite: EDPF 39595, corequisite HED 42358.

HEBREW (HEBR)
For placement and credit in foreign
language courses see Arts and Sci-
cences—Foreign Language Require-
ment—Placement and Credit.

12101 Elementary Hebrew I (4)
An introduction to the modern Hebrew language in
the context of Israeli culture. Prerequisite: None.
This course may be used to satisfy the LERs.

12102 Elementary Hebrew II (4)
A continuation of the introduction to the modern
Hebrew language in the context of Israeli culture.
Prerequisite: HEBR 12101 or equivalent. This
course may be used to satisfy the LERs.

22104 Intermediate Hebrew I (3)
Continued development of speaking, listening, read-
ing and writing skills using a variety of cultural
materials. Prerequisite: HEBR 12102 or equivalent.

22105 Intermediate Hebrew II (3)
Continuation of HEBR 22104. Prerequisite: HEBR
22104 or equivalent.

HERITAGE LANGUAGES (HRTG)
For placement and credit in heritage
foreign language courses see Arts and
Sciences—Foreign Language and
Placement and Credit. Individual lan-
guage(s) will be specified in the
Schedule of Classes.

10101 Elementary I (Variable Language) (4)
An introduction to a heritage language in the context
of the culture of its speakers. Prerequisite: None.
This course may be used to satisfy the LERs.

10102 Elementary II (Variable Language) (4)
A continuation of the introduction to a heritage lan-
guage in the context of the culture of its speakers.
Prerequisite: HRTG 10101 or Elementary I.
This course may be used to satisfy the LERs.

20101 Intermediate I (Variable Language) (3)
Continued development of speaking, listening, reading
and writing skills using a variety of cultural materials.
Prerequisite: HRTG 10102 or Elementary II.

20202 Intermediate II (Variable Language) (3)
Continuation of HRTG 20101. Prerequisite: HRTG
20101 or Intermediate I.

30095 Special Topics (1-3)
(Repeated registration permissible) Topic
announced in Schedule of Classes. Prerequisite:
Permission.

HIGH TECHNOLOGY MANUFACTURING
TECHNOLOGY (HTMT)*
13600 Electronic Materials (2)
Introduction to electronic properties and structure of
semiconductor materials, micro-machines, sen-
sors and packaging materials. Prerequisite: CHEM
10060 plus lab.

13601 Introduction to Photonics and Fiber
Optics (3)
Introduction to fiber optics and photonic compo-
nents/systems, devices and optical communica-
tions. Prerequisite: Permission.

13602 Introduction to Lasers (3)
Introduction to laser theory, operation, and operat-
ing practices and its output characteristics. Usage
of low-power helium-neon lasers and safety consid-
erations. Prerequisite: Permission. Special fee:
$15/cr. hr.—subject to change.

13603 Lasers and Electro-Optic Components
and Devices (3)
The laser technology tools, special purpose devices
and measuring tools are discussed. Prerequisite: Per-
mission. Special fee: $15/cr. hr.—subject to change.

23600 Semiconductor Manufacturing I (3)
Study of semiconductor manufacturing. An empha-
sis on "clean room" operations will be studied. Top-
ics include oxidation, photolithography, photomask-
ing, etching, doping, deposition, metal-
ization and packaging. Prerequisite: HTMT 13600.
Special fee: $20/cr. hr.—subject to change.

23601 Semiconductor Manufacturing II (3)
An overview knowledge of wafer fabrication opera-
ations is the goal. A team project will require complete
technical report emphasizing quality control, and
integration of electronics, etc. Prerequisite: HTMT
23600. Special fee: $20/cr. hr.—subject to change.

23602 Photolithography in IC Fabrication (2)
Introduction to light and optical systems used in
photolithographic processes and equipment in
semiconductor manufacturing using PC Board
Design Software and electronic assembly. Corequi-
site: HTMT 23600.

*Courses offered only at Regional Campuses.
23603 Light Sources and Wave Optics (3)
Study of the generation and measurement of light and the wave nature of light from the viewpoint of wave optics including optical materials. Prerequisite: Sophomore standing or permission.

23604 Vacuum System Technology (2)
Study of vacuum technology with emphasis on application to semiconductor manufacturing. Terminology, measurement techniques, operation and application of vacuum equipment, leak detection and troubleshooting are present. Prerequisite: PHY 12201 or permission.

23606 Power Radio Frequency (2)
Study of vacuum radio frequency energy and its application in the manufacturing industry. Topics include plasma physics, RF applications, safety, RF generators, transmission lines and RF interference. Prerequisite: PHY 12202 and EERT 12010. Special fee: $30/cr. hr.—subject to change.

23607 Laser Technology: Applications (3)
Study and application of laser technology in industry, manufacturing and medicine, including laser safety and hazard evaluation. Prerequisite: Sophomore standing or permission.

23609 History of Byzantine Civilization (3)
The Byzantine Empire and its culture from the foundation of Constantinople to the Turkish Conquest (A.D. 330-1453). Prerequisite: None.

31009 History of American Business (3)
The history of economic, social and political events in the United States from the Colonial period to the present. Prerequisite: None.

31024 World War II (3)
Survey of one of the greatest political and military events in history, focusing especially on causes, major personalities, and chief political, ideological, moral, scientific and diplomatic aspects. Prerequisite: None.

31027 History of England to 1668 (3)
Survey of medieval and early modern England. Topics include Norman Conquest, medieval culture and society, Reformation, Age of Elizabeth, English Revolution. Prerequisite: None.

31028 England Since 1688 (3)
Survey of national development from the Glorious Revolution through the Second World War, with special attention to leaders, prominent individuals, and problems of change. Prerequisite: None.

31029 History of the British Empire and Commonwealth Since 1815 (3)
Survey of British colonialism and nation-building with an emphasis on Canada, Australia, Ireland, India and South Africa. Prerequisite: None.

31050 History and Society of Modern Greece (3)
Study of Modern Greece concentrating on political, economic, cultural and societal developments since 1821. Prerequisite: None.

31051 Romanic Civilization (3)
Survey of major features of Romanian civilization from antiquity to modern era. Prerequisite: None.

31052 History of Modern France (3)
Survey of French history from 1815 to the present. Topics include industrialization, republicanism and revolution, the experience of war and defeat, empire and decolonization. Prerequisite: None.

31053 History of Contemporary France (3)
Survey of French history from the French Revolution to the present. Prerequisite: None.

31054 History of Contemporary France (3)
Survey of French history from the French Revolution to the present. Prerequisite: None.

31055 History of contemporary France (3)
Survey of French history from the French Revolution to the present. Prerequisite: None.

31056 History of contemporary France (3)
Survey of French history from the French Revolution to the present. Prerequisite: None.

31057 History of England to 1668 (3)
Survey of medieval and early modern England. Topics include Norman Conquest, medieval culture and society, Reformation, Age of Elizabeth, English Revolution. Prerequisite: None.

31058 England Since 1688 (3)
Survey of national development from the Glorious Revolution through the Second World War, with special attention to leaders, prominent individuals, and problems of change. Prerequisite: None.

31059 History of the British Empire and Commonwealth Since 1815 (3)
Survey of British colonialism and nation-building with an emphasis on Canada, Australia, Ireland, India and South Africa. Prerequisite: None.

31061 History of Ohio (3)
Prerequisite: None.

31070 History of American Business Enterprise (3)
An analysis of American business institutions, practices and leadership from the Colonial period to the present. Prerequisite: None.

31078 African American History (3)
Survey of the black experience in the United States from the Colonial period to the present time. Prerequisite: None.
31143 The African-Brazilian Experience in Culture and Literature (3)
(Gross-listed with MOLS 37143 and PAS 37143)
Interdisciplinary approach to the study of the African-Brazilian experience, from the Colonial period to the present, as reflected in selected literary, sociocultural and historical texts. Course taught in English. Prerequisite: Junior standing or permission. This course may be used to satisfy the University Diversity Requirement.

32050 The Historian’s Craft (3)
Introduction to the practice of history, with a focus on basic research methods and the systematic production of written texts. Prerequisite: History major and 6 hours in history. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

38085 Selected Topics in History (3)
Special history course, varying in accordance with desire and competence of faculty. Precise title to be inserted in Schedule of Classes. Prerequisite: None.

38997 Colloquium in History (3)
Various philosophical and methodological approaches to the study of history are considered. Required for those seeking to graduate with honors in history. Prerequisite: None.

40083 Workshop in History (1-6)
Special workshop in history. Topic will vary according to professor. S/U grading. Prerequisite: None.

40085 Writing in History (1)
Writing-intensive course taken in conjunction with a 3-credit-hour upper-division history course. Prerequisite: Permission of instructor and department. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

40197 American Cultural Heritage: the Arts and Society (3)
Examination of music, painting and literature in their cultural contexts during four periods of American history. American studies methodology and interdisciplinary thought. Prerequisites: Junior standing and one upper course in history.

41000 Introduction to Public History (3)
A survey of public history including: archives; editing; museums and historical agency administration; historical preservation; and related skill areas (e.g., artifact analysis, oral history). Prerequisite: Junior standing.

41003 History of Ancient Greece (3)
Survey of Greek history from the Bronze Age to the rise of Macedonia and Alexander the Great. Prerequisite: Junior standing.

41004 Hellenic Contributions to Western Civilization (3)
Major intellectual and cultural achievements of the Greeks—ca. 800-320 B.C. Prerequisite: Junior standing.

41006 Roman History (3)
(Cross-listed with CLAS 41006) A survey of Roman history from its beginnings to the fall of the Roman empire. Prerequisite: Junior standing.

41010 The Early Middle Ages (3)
Survey of major political, social and cultural developments of Europe from the fourth through the tenth centuries. Prerequisite: Junior standing.

41011 The High Middle Ages (3)
Survey of political, social and cultural developments of Europe from 11th through 13th centuries. Prerequisite: Junior standing.

41014 Europe in the Renaissance (3)
Analysis of the various factors leading Europe from a rural, feudal, ecclesiastical society to one characterized by urbanism, trade, secularism and the state. Prerequisite: Junior standing.

41016 The Protestant and Catholic Reformations (3)
Comprehensive course dealing with the religious, political, economic and social change accompanying the religious upheavals of the 16th century. Prerequisite: Junior standing.

41017 Seventeenth-Century Europe (3)
This course will analyze those political, economic, social, religious and intellectual factors leading to economic crisis and civil wars in Europe. Prerequisite: Junior standing.

41018 Eighteenth-Century Europe: Age of Revolution (3)
This course will analyze the many different factors and unresolved crises of the 17th century that led to revolution throughout Europe. Prerequisite: Junior standing.

41020 Nineteenth-Century Europe (3)
Focus on industrialization and social transformation, political upheavals, intellectual thought, nationalism, and foreign policy in Great Britain, France, Prussia and Austria. Prerequisite: Junior standing.

41024 Modern European History, 1914-1945 (3)
Special attention paid to the two world wars, Bolshevik Revolution, rise of fascism and fate of European Jewry. Prerequisite: Junior standing.

41025 Modern European History: 1945 to Present (3)
Survey of European political, economic, social and cultural developments since 1945. Prerequisite: Junior standing.

41026 Tudor England 1485-1603 (3)
Early Modern England with emphasis on Renaissance, Reformation, social change and the Tudor monarchs, Henry VIII and Elizabeth. Prerequisite: Junior standing.

41028 Hanoverian England (3)
England under first three Georges, with stress on growth of political parties. duel for world empire, the French and Industrial revolutions. Prerequisite: Junior standing.

41031 Modern British Intellectual History (3)
British social, political and aesthetic thought since 1700. Prerequisite: Junior standing.

41040 History of Germany, 1849-1871 (3)
Focuses on the rise of Prussia, the cultural revival of the 19th century, the impact of the French Revolution, and the process of unification. Prerequisite: Junior standing.

41041 History of Germany, 1871—Present (3)
Focuses on the impact of industrialization, the dilemma of the German left, the rise of Nazism, and the emergence of two German states after 1945. Prerequisite: Junior standing.

41044 Russia From Its Origins to 1801 (3)
Study of the Russian people, state and culture in the Kievan, Muscovite and early Imperial periods, with emphasis on major institutional, socioeconomic and ideological changes. Prerequisite: Junior standing.

41045 Russia, 1801 to Present (3)
Focus on the Imperial bureaucracy, Russian intelligentsia, the nationality question, modernization, the Russian revolutions, Civil War, NEP, and collectivization which shaped Russian/Soviet history. Prerequisite: Junior standing.

41049 History of the Balkans: Eighteenth Century to 1914 (3)
Survey of Albanians, Bulgarians, Greeks, Romanians and South Slavs under Ottoman domination and their struggles for national independence. Prerequisite: Junior standing.

41050 History of the Balkans: 1914 to Present (3)
The Balkans since 1914, including coverage of post-World War II period. Prerequisite: Junior standing.

*Courses offered only at Regional Campuses.
41056 History of Colonial America: 1492-1714 (3)
Major patterns of thought and behavior among Spanish, French and English expansionists; English colonization to 1714. Prerequisite: Junior standing. This course may be used to satisfy the university Diversity Requirement.

41057 Eighteenth-Century America: 1714-1789 (3)
Cultural development of English Colonies; Great War for Empire; American Revolution and Constitution. Prerequisite: Junior standing. This course may be used to satisfy the university Diversity Requirement.

41058 Jefferson-Jackson Era, 1789-1848 (3)
Study of the founding and development of the American nation, especially the periods of Jefferson and Jackson. Prerequisite: Junior standing.

41062 The United States: The Westward Movement (3)
The process of settlement from its beginnings; consequences for American history. Prerequisite: Junior standing.

41065 Sectional Conflict and Civil War (3)
Differences within the United States, including the controversy over slavery; the Civil War in all its aspects. Prerequisite: Junior standing.

41066 Reconstruction and the Later South (3)
Controversy during and after the Civil War as to racial and sectional relationships; the post-Reconstruction compromises and their undoing. Prerequisite: Junior standing.

41068 Progressive America: The United States, 1900-1929 (3)
Prerequisite: Junior standing.

41069 Recent America: The United States, 1929-Present (3)
Prerequisite: Junior standing.

41070 American Social and Intellectual History 1790-1876 (3)
Major currents of the period: Social background of the early republic; religious development; impact of the frontier; abolition. Prerequisite: Junior standing. This course may be used to satisfy the university Diversity Requirement.

41071 American Social and Intellectual History, 1876-Present (3)
Continuation of HIST 41070. Development of social Darwinism, racism, pragmatism, popular arts. Prerequisite: Junior standing. This course may be used to satisfy the university Diversity Requirement.

41072 American Military History, 1775-1900 (3)
Survey of American military history from its Colonial origins to 1900. Prerequisite: Junior standing.

41073 American Military History, 1900-Present (3)
Survey of American military history from 1900 to the present. Prerequisite: Junior standing.

41074 American Economic History (3)
Survey of growth and development of American economic and business life from Colonial times to the present. Prerequisite: Junior standing.

41075 American Economic History: Before 1900 (3)
Developments and problems in U.S. economic life from the colonial era to 1900. Prerequisite: Junior standing.

41076 American Economic History: After 1900 (3)
Survey of development of the U.S. economy since 1900. Prerequisite: Junior standing.

41077 American Economic History: 1900-1945 (3)
The development of the U.S. economy since 1900, focusing on key economic events. Prerequisite: Junior standing.

41078 American Economic History: 1945-Present (3)
Survey of economic developments in the U.S. since 1945. Prerequisite: Junior standing.

41079 History of the Immigrant in America (3)
Impact of, primarily, European immigrants on America from the 17th century to the present and the influence, in turn, of America on the immigrants. Prerequisite: Junior standing.

41080 Constitutional Government in the United States (3)
Prerequisite: Junior standing.

41081 Constitutional History of the United States (3)
Prerequisite: Junior standing.

41082 U.S. Foreign Relations Through World War I (3)
The evolution of U.S. foreign policy from its Colonial origins through the Paris Peace Conference of 1919 with special emphasis on the domestic roots of foreign policy. Prerequisite: Junior standing.

41083 U.S. Foreign Relations Since World War I (3)
The history of U.S. foreign policy since 1919, with special emphasis on the evolving role of America as a world power. Prerequisite: Junior standing.

41084 U.S. Foreign Relations From 1920 (3)
The history of U.S. foreign policy from the 1920s on with special emphasis on the evolving role of America as a world power. Prerequisite: Junior standing.

41085 U.S. Foreign Relations Through World War II (3)
The history of U.S. foreign policy from its Colonial origins to 1945 with special emphasis on the domestic roots of foreign policy. Prerequisite: Junior standing.

41086 U.S. Foreign Relations Since World War II (3)
The history of U.S. foreign policy since 1945, with special emphasis on the evolving role of America as a world power. Prerequisite: Junior standing.

41087 Colloquium: Saints, Monks, and the Medieval Community (3)
Investigates major religious institutions that shaped medieval European society and the impact on popular piety. Prerequisite: Junior standing.

41088 History of Modern China (3)
Disintegration of the Chinese empire amid Western challenge and internal disorder and the subsequent rise of communism. Prerequisite: Junior standing.

41089 The Holocaust: The Destruction of European Jewry, 1938-1945 (3)
Analysis of those political, economic, social and intellectual factors leading to systematic destruction of European Jewry during World War II. Prerequisite: Junior standing.

41090 History of Africa to 1880 (3)
Prerequisite: Junior standing.

41091 History of Africa, 1880-Present (3)
Prerequisite: Junior standing.

41092 Independence in Latin America (3)
A study of revolutions and wars through which Spanish America achieved its independence as well as the peaceful separation of the Brazilian Empire from Portugal. Prerequisite: Junior standing.

41093 Twentieth-Century Mexico (3)
Beginning with the 1910 Mexican Revolution and concluding with the present administration, this course focuses on domestic and international events which have shaped present-day Mexico. Prerequisite: Junior standing.

41094 The French Revolution and Napoleon (3)
Analysis of the causes of revolution in France, political, ideological and social conflict in the construction of French democracy, expansion of the revolution outside of France. Prerequisite: Senior standing.

41095 Colloquium: China and Japan (3)
Study of important issues in the history of China and Japan through reading and discussing major works pertinent to the issues selected. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

41096 Colloquium: Women in Europe From Antiquity to Renaissance (3)
This course examines the social, cultural and economic institutions which determined the position of women from antiquity to the 16th century. Other issues considered are the image and role of women, Christian perceptions of women and their impact on women’s lives. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.
42497  Colloquium: Women in Modern Europe (3)
The colloquium addresses the experiences of European women from the Enlightenment to the present. Using primary sources and recent scholarship, students examine the relationship between women and state formation, industry, sexuality, empire, socialism, war, welfare, migration and feminism. Prerequisite: Junior standing. This course may be used to satisfy the university Diversity Requirement and the Writing-Intensive Course Requirement with approval of major department.

42567  Race Relations (3)
(Cross-listed with SOSC 42567) Historical and sociological principles underlying race and ethnic relations; emphasis on black-white relations in the U.S. Prerequisite: Junior standing.

43697  Colloquium in Tudor and Stuart England (3)
Discussion of major problems of early modern England, including the Reformation, Puntan movement, social and economic change, and political conflict. Prerequisites: Junior standing and permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

43797  Colloquium on Victorian England (3)
Consideration of distinctive features of Victorian England including class structure, ideas, manners, politics, foreign affairs, empire. Prerequisite: None. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

44297  Colloquium in African History (3)
This course will deal with some of the major themes of African history. Topics will vary from semester to semester. Prerequisite: Junior standing.

45597  Colloquium in Russian History (3)
Study of major issues in Russian history through analysis and discussion of the historiography and critical writing. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

45697  Colloquium: Social History of Latin America (3)
The formation of Latin American societies from the Iberian Conquest to the present. Prerequisite: Permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

45797  Colloquium: Comparative Latin American Revolutions (3)
A study of the meaning of revolution in Latin America from the wars of independence to the Nicaraguan revolution in 1979. A comparative approach is employed focusing on Mexico, Brazil, Cuba, Chile and Central America. Prerequisite: Permission. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

46597  Colloquium in Twentieth-Century European Diplomacy (3)
Coverage of important works dealing with major diplomatic issues from origins of World War I to present. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

46897  Colloquium on the Age of Jefferson (3)
Intensive examination of the problems of a critical period of American history through readings, reports and discussions. Prerequisite: Junior standing.

47597  Colloquium on NATO (3)
An examination of the historical significance of the Atlantic Alliance from its origins in the late 1940s to the present. Prerequisite: Junior standing.

47697  Colloquium on Post-1945 Europe (3)
Coverage of the historical literature on Europe’s major political, diplomatic, economic and social developments since 1945. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

48097  Colloquium in Twentieth-Century U.S. Foreign Relations (3)
Covers U.S. diplomatic history from World War I to the present emphasizing bibliography and historiography. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

48697  Colloquium: U.S. Middle Period, 1820-1900 (3)
Reading, discussion and written reviewing of important works on the period. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

48797  Colloquium in African American History Since 1877 (3)
This colloquium specializes in African American history after 1877, with emphasis on historiographical literature of the period. Prerequisite: Junior standing.

48897  Colloquium on the Immigrant in American History (3)
Study of the major problems and writings in, and approaches to, American immigration history through discussion and critical writing. Prerequisite: Junior standing. This course may be used to satisfy the Writing-Intensive Course Requirement with approval of major department.

49195  Selected Topics in History (3)
Special history course, the subject/topic of which varies in accordance with desire and competence of faculty. Precise title to be inserted in Schedule of Classes. Prerequisite: Junior standing.

49196  Individual Investigation (2-3)
IP grade permissible. Prerequisite: Permission.

49199  Senior Honors Project (3-6)
Thesis or other independent study or creative project. Required of students seeking to graduate with honors in history. IP grade permissible. Prerequisite: Permission (see HONR 40099).

HONORS COLLEGE (HONR)
In addition to the prerequisites, all Honors courses are CONTROLLED.

10096  Individual Honors Work (1-4)
Directed independent study for freshmen in any department. IP grade permissible. Prerequisites: Prior consent of instructor; approval of and preregistration with Honors College.

10197  Freshman Honors Colloquium I (1-4)
Required of all honors freshmen in lieu of College English. Stresses exploration, discussion and communication of ideas expressed in works related to theme of colloquium. IP grade permissible. Prerequisite: Honors or permission.

10297  Freshman Honors Colloquium II (1-4)
Continuation of HONR 10197. IP grade permissible. Prerequisite: Honors or permission.

13197  Colloquium: The History of Civilization I (3)
World history from early human societies through the mid-17th century. Prerequisite: Honors or permission. This course may be used to satisfy the LERs and the university Diversity Requirement.

*Courses offered only at Regional Campuses.
12097 Colloquium: History of Civilization II (3)
Continuation of HONR 13197. World history from
mid-17th century to the present. Prerequisite: Honors
or permission. This course may be used to satisfy the
LERs and the university Diversity Requirement.

13397 Colloquium: U.S. History I (3)
Survey of U.S. history through 1877. Prerequisite: Honors
or permission. This course may be used to satisfy the
LERs and the university Diversity Requirement.

13497 Colloquium: U.S. History II (3)
Survey of U.S. history since 1877. Prerequisite: Honors
or permission. This course may be used to satisfy the
LERs and the university Diversity Requirement.

15297 Colloquium: American Politics (3)
This course covers the basic elements of politics at
the national level in the United States: structures,
processes, behaviors, institutions and policies. Special
emphasis is given to conflicting theories of power as they apply to different economic, sexual
and racial groups in America. Prerequisite: Honors
or permission. This course may be used to satisfy the
LERs and the university Diversity Requirement.

15397 Colloquium: World Politics (3)
A practical, theoretical introduction to a study of sys-
tematic patterns in international relations. Includes
analysis of rules, instruments, processes, decision-
making factors, conflict resolution. Prerequisite: Honors
or permission. This course may be used to satisfy the
LERs and the university Diversity Requirement.

15497 Colloquium: Comparative Politics (3)
This course introduces the different institutional struc-
tures of governance (e.g., parliamentary vs. presiden-
tial systems) in a range of different states; for different
types of regimes (e.g., democratic and authoritarian);
and at the international level. Prerequisite: Honors
or permission. This course may be used to satisfy the
LERs and the university Diversity Requirement.

20096 Individual Honors Work (1-4)
Directed independent study for sophomores in any
department. IP grade permissible. Prerequisite: Prior
consent of instructor; approval of and prereg-
istration with Honors College.

20197 Sophomore Colloquium (1-4)
One-semester course or two-semester sequence
exploring interdisciplinary ideas and issues related to
a single theme, by means of readings, discussion and
individual papers and projects. IP grade permis-
sible. Prerequisite: Honors standing or permission.

20297 Sophomore Colloquium (1-4)
See HONR 20197. IP grade permissible. Prerequi-
site: Honors or permission.

21197 Colloquium: Principles of Microeconomics (3)
Principles and policies affecting prices, including
factor incomes, under alternative market structures.
Tools developed to examine social problems,
including poverty, crime, pollution and international
relations. Prerequisite: Honors or permission. This
course may be used to satisfy the LERs.

21297 Colloquium: Principles of Macroeconomics (3)
Principles and policies affecting aggregate produc-
tion, consumption, investment and government
expenditures. Includes role of money, the banking
system, inflation, unemployment and economic
growth. Prerequisite: Honors or permission plus
HONR 21197 or ECON 22060. This course may be
used to satisfy the LERs.

25197 Colloquium: State and Local Government (3)
Study of three branches of state government cou-
pled with examination of politics, organization and
functions of counties, townships and special dis-
tricts. Prerequisite: Honors or permission.

25497 Colloquium: Political Theory (3)
Examines role and impact of ideas on politics; pre-
sents political theory in historical perspective; ana-
lizes alternative theories of politics, their values and
justifications. Prerequisite: Honors or permission.

30096 Individual Honors Work (1-4)
Directed independent study for juniors in any
department. IP grade permissible. Prerequisites:
Prior consent of instructor; approval of and prereg-
istration with Honors College.

30197 Junior Colloquium (1-4)
One-semester course or two-semester sequence for
juniors or seniors exploring interdisciplinary ideas
and issues related to single theme, by means of
readings, discussion and individual papers and proj-
cts. IP grade permissible. Prerequisite: Honors or permission.

30297 Junior Colloquium (1-4)
See HONR 30197. IP grade permissible. Prerequi-
site: Honors or permission.

30497 Colloquium: International Study (1-4)
Designed for students preparing for participation in
overseas programs sponsored by Center for Inter-
national and Comparative Programs. Provides basis
for future research abroad. IP grade permissible.
Prerequisite: Honors or permission.

33097 Colloquium in History (3)
Honors equivalent of HIST 38997. Stresses research
and reading of original materials. Prerequi-
site: Honors or permission.

35097 Colloquium in Political Science (1-4)
Intensive study of significant problems in politics.
Topic, readings and core research theme vary from
semester to semester. Prerequisite: Honors or per-
mission.

40096 Individual Honors Work (1-4)
Directed independent study for seniors in any
department. IP grade permissible. Prerequisites:
Prior consent of instructor; approval of and prereg-
istration with Honors College.

40099 Senior Honors Thesis/Project (1-10)
Thesis or creative project. IP grade permissible.
Prerequisites: Honors senior standing; departmental
and honors consultation and approval prior to first
semester of senior year; and formal proposal.

40197 Senior Colloquium (1-4)
One-semester course or two-semester sequence
exploring interdisciplinary ideas and issues related to
single theme, by means of readings, discussion and
individual papers and projects. IP grade permis-
sible. Prerequisite: Honors or permission.

40297 Senior Colloquium (1-4)
See HONR 40197. IP grade permissible. Prerequi-
site: Honors or permission.

40497 Colloquium: International Study (1-4)
See HONR 30497. IP grade permissible. Prerequi-
site: Honors or permission.

HORTICULTURE TECHNOLOGY (HORT)*

16001 Introduction to Horticulture (1)
The history and development of the various horticul-
tural and related industries throughout the United
States and their relationship. Lecture 1 hour weekly;
offered only at the Salem Campus. Prerequisite: None.

26001 Occupational Regulations and Safety (2)
Presentation of the basic standards, rules, safety
regulations and laws pertaining to horticultural and
related industries which will affect the work atmos-
phere. Lecture 2 hours weekly; offered only at the
Salem Campus. Prerequisites: BSCI 16001 and
HORT 16001.
26010 Arboiculture (3)  
Basics of pruning and tree climbing techniques. This course covers the equipment and safe use of equipment commonly found in the arboricultural industry. Lecture 2 hours weekly; lab 3 hours weekly; offered only at the Salem Campus. Prerequisites: BSCI 16001 and HORT 16001 and CHEM 16001; corequisite: HORT 26011.

26011 Cooperative Work Experience in Tree Care (3)  
Cooperative work program through which the skills necessary to perform professionally in this occupation will be acquired. This course offered only at the Salem Campus. Requires a minimum of 30 hours per week of work experience. Not more than 9 semester hours in this or a combination of other work experience classes will be allowed. S/U grading; IP permissible. Prerequisite: corequisite: HORT 26010.

26020 Landscape Management (3)  
Basic principles of landscape management. This course covers equipment and safe use of equipment commonly found in the landscape industry. Lecture 2 hours weekly; lab 3 hours weekly; course offered only at the Salem Campus. Prerequisite: BSCI 16001 and HORT 16001 and CHEM 16001; corequisite: HORT 26021.

26021 Cooperative Work Experience in Landscape Management (3)  
Cooperative work program through which the skills necessary to perform professionally in this occupation will be acquired. This course offered only at the Salem Campus. Requires a minimum of 30 hours per week of work experience. Not more than 9 semester hours in this or a combination of other work experience classes will be allowed. S/U grading; IP permissible. Prerequisite: corequisite: HORT 26020.

26030 Turf Grass Management (3)  
Basic principles of turf management. This course covers turf equipment and the safe use of equipment commonly found in the turf industry. Lecture 2 hours; lab 3 hours weekly; course offered only at the Salem Campus. Prerequisites: BSCI 16001, and HORT 16001 and CHEM 16001; corequisite: HORT 26031.

26031 Cooperative Work Experience in Turf Grass Management (3)  
Cooperative work program through which the skills necessary to perform professionally in this occupation will be acquired. This course offered only at the Salem Campus. Requires a minimum of 30 hours per week of work experience. Not more than 9 semester hours in this or a combination of other work experience classes will be allowed. S/U grading; IP permissible. Prerequisite: corequisite: HORT 26030.

HOSPITALITY MANAGEMENT (HM)  

13022 Sanitation and Safety Principles and Practices (3)  
Safety and sanitation practices pertinent to food service. Emphasis is on laws, food microbiology, storage practices and accident prevention. Prerequisite: None.

13022 Techniques of Food Production I (5)  
Introduction to quantity food production. Includes work simplification, equipment usage, safety, sanitation, recipe and yield analysis. Salads, soups, sauces, vegetable, milk, cheese and egg preparation. Prerequisite: Majors or permission.

13024 Introduction to Hospitality Management (2)  
Career opportunities and the scope, development and history of the hospitality industry. Introduction to management in the hospitality industry including food service, lodging and tourism. Prerequisite: None. Special fee: $2/cr. hr.—subject to change.

23012 Food Study (3)  
Principles of food preparation and quality evaluation with consideration of nutritive value and retention. One hour of lecture and 4 hours of lab. (Note: Nutrition and dietetics majors should take CHEM 10060, 10061 and 20481; students in other majors should take CHEM 10050 and 10052 as prerequisites for this course.) Prerequisite: NUTR 23511. Special fee: $11/cr. hr.—subject to change.

23023 Techniques of Food Production II (4)  
Quantity food production. Includes equipment usage, safety, sanitation, baked goods, meat, fish, seafood and poultry. Prerequisite: HM 13022 and 13023.

23030 Lodging Operations (3)  
This course provides students with an introduction to lodging, resort operations and management. Skills needed to succeed in the field and career opportunities are emphasized. Prerequisite: None.

33020 Legal Issues in the Hospitality Industry (3)  
Overview and analysis of legal issues of concern to the hospitality industry. Topics include: employment law; food and beverage liabilities; patron civil rights, local, state, and federal regulations; and franchising. Prerequisite: Junior standing.

33026 Hospitality Cost Control and Analysis (5)  
Prepares students to analyze and control costs for the management of hospitality organizations. Emphasis is placed on product identification, grading and quality standards. Prerequisites: HM 23023.

33027 Catering and Banquet Preparation and Service (5)  
Combines theoretical and practical applications of planning, merchandising, costing, producing and serving catered meals. Prerequisite: HM 33026. Special fee: $5/cr. hr.—subject to change.

33028 Hospitality Purchasing (3)  
Emphasis on the selection of food, goods and services for the management of hospitality organizations. Prerequisites: HM 23023.

33029 Hospitality Service Quality Management (3)  
The unique issues associated with managing guest satisfaction will be explored. The delivery of quality services and recovery from service failure in hospitality organizations will be studied from a human resource and organizational perspective. Prerequisite: M&IS 24163.

41093 Variable Topic Workshop in Hospitality Management (1-3)  
Workshop setting dealing with a topic or topics in hospitality management. Learning experiences are provided in a wide range of areas. S/U grading. Prerequisite: None.

41095 Special Topics in Hospitality Management (1-4)  
Discussion of a major topic within a specific field of hospitality management. Prerequisite: None.

41096 Individual Investigation (1-3)  
Independent study in hospitality management. Prerequisite: Written permission from instructor.

43025 Hospitality Marketing (3)  
Application of marketing principles, practices and theories relevant to hospitality organizations. Case studies drawn from the hospitality industry are incorporated. Prerequisite: HM 23023, M&IS 24163, and MKTG 23510.

*Courses offered only at Regional Campuses.