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33029 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: $25 flat fee—subject to change.

33035 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: MIS 24163.

33036 Club Management (3)
Introduction to private club management and operations. Strategic planning, marketing, human resources, service excellence, legal issues and financial management will be emphasized within the context of food and beverage, golf and recreation. Prerequisite: junior standing.

33050 Professional Practices in Hospitality Management (1)
Preparation of student for professional work experiences in hospitality management. Career development and professional workplace issues are addressed. Prerequisite: junior standing.

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. SU 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 special approval 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. Prerequisites: HM 13023 and MKTG 25010.

43027 Hospitality Human Resource Management (3)
Application of human resource management principles, practices, theories and legal issues relevant to hospitality organizations. Hospitality management-focused case studies are incorporated. Prerequisite: 2008-2009 Kent State University Undergraduate Catalog sites: HM 33026 and MIS 34180. This course may be used to satisfy the writing-intensive requirement with approval of major department.

43029 Hospitality Financial Policy (3)
Strategic financial decision making for short- and long-term financial management problems in various hospitality organizations such as hotels, restaurants, clubs and resorts, through case analysis. Prerequisite: FIN 36063.

43030 Food Service Systems Management (3)
The study of food service systems management, including menu planning and evaluation, recipe development, purchasing, equipment, financial management, marketing and human resources. Prerequisite: HM 23012.

43031 Layout and Design of Food Service Operations (3)
Analysis and planning for the layout and design of commercial food services operations. Includes basic principles of design; space analysis; and equipment use, care selection and layout for food services facilities based on the financial performance of the operation; food codes; and related regulations. An appreciation for engineering and architecture concerns pertaining to food service operations is developed. Prerequisite: HM 33023.

43032 Food Production and Service Management (3)
The application of management principles in food production and service systems, including production management, quality control, distribution and service and physical facilities. A laboratory is included in the course. Prerequisites: HM 23012 and 43030.

43034 Hospitality Meetings Management (4)
Exploration of the unique issues associated with managing hospitality meeting and event planning. Emphasis on management of social, association and banquet, receptions and annual meetings held in hospitality venues requiring food and beverage and/or lodging. Prerequisites: HM 23030 and 33026.

43092 Practicum/Hospitality Management (3-6)
Supervised professional experience in the hospitality industry including operations such as restaurants, hotels, clubs, health care, theme parks and food distribution. Bimonthly seminars course assignments are included. Repeatable for a total of 6 credits. Prerequisites: HM 33050 and junior or senior standing.

**HUMAN DEVELOPMENT AND FAMILY STUDIES (HDFS)**

14027 Introduction to Human Development and Family Studies (2)
Introduction to human services related to human development and family studies, the career opportunities available and the skills required to succeed in the field. Prerequisite: none.

24011 Interpersonal Relationships and Families (3)
(Cross-listed with SOC 24011) Exploration of the sociological nature of families across the life span, focusing on structure, diversity and life-course processes, such as dating, mate selection, cohabitation, marriage, parenthood, divorce, remarriage, singleness, widowhood, parent-child interactions, sexual orientation, inequality and difference. Prerequisite: none. This course may be used to satisfy the diversity requirement.

24012 Child Development (3)
General development of the child from prenatal through middle childhood. Prerequisite: HDFS 24011.

24013 Early Adolescence (3)
Examines the fundamental transitions, social contexts and psychosocial processes involved in human development from ages 10 through 15. Implications for working with this age group within schools, human services agencies and youth development programs. Prerequisite: none.

24095 Special Topics in Human Development and Family Studies (1-4)*
Discussion of a major topic within human development or family studies. Prerequisite: HDFS 24011.

25512 Management of Family Resources (3)
Management as applied to individuals, families and human service professionals. Prerequisite: HDFS 24011.

34013 Development in Infancy (3)
Study of genetic influences, prenatal development and birth, and the developmental characteristics of the infant and toddler. Prerequisites: HDFS 14027 and 24012.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
34031 Cultural Diversity: Implications for the Helping Professions (3)
This class is designed to enhance the competencies and success of students planning to work in human services. Learning how different cultural backgrounds influence the perceptions and behaviors of clients in the human service setting is emphasized. Prerequisite: none.

41083 Variable Topic Workshop: Human Development and Family Studies (1-3)
Workshop setting dealing with a topic or topics in human development and family studies. Learning experiences are provided in a wide range of areas. S/U grading. Prerequisite: none.

41095 Special Topics in Human Development and Family Studies (1-4)
Discussion of a major topic within human development or family studies. Prerequisite: none.

41096 Individual Investigation (1-3)
Independent study in human development and family studies. Prerequisite: written special approval from instructor.

44018 Professional Development in Human Development/Family Studies (3)
Preparation of students for professional work experiences as well as providing an opportunity to discuss recent developments in the fields of human development and family studies and gerontology. Prerequisites: human development and family studies (HDFS) majors and senior standing.

44019 Intergenerational Experiences (3)
Provides students with practical experience in working with older adults in a structured setting. The focus of activities is on enhancing the well-being of all participants and providing information in the areas of health, fitness and other areas of well-being as well as community resources for older adults. Students apply information about adult development to the older participants or members via a case study. Moreover, both the students and older adults will become more knowledgeable about the characteristics of each age group and their respective cultures and achieve a comfort level that promotes intergenerational experiences. Prerequisite: none.

44020 Adolescent Development (3)
Study of adolescent development with emphasis on forces related to adolescent behavior in the family and society. Evaluation of current research. Prerequisite: human development and family studies (HDFS) majors.

44021 Family Intervention Across the Lifespan (3)
Evaluation of research and theoretical models in the area of family intervention. Focus on strategies for assisting families in coping with a variety of critical issues over the family life cycle. Prerequisite: human development and family studies (HDFS) majors.

44022 Changing Roles of Men and Women (3)
A study of roles of men and women—past, present and future. Prerequisite: none.

44023 Building Family Strengths (3)
The Building Family Strengths Model builds upon family life potential; based on extensive research emphasizing identified family strengths. Prerequisite: human development and family studies (HDFS) majors.

44028 Parent-Child Relationships (3)
Study of parent-child relationships across the life span and within various contexts. Emphasis on the process of socialization and determinants of parent-child relationships based on current research. Prerequisite: human development and family studies (HDFS) majors.

44029 Family Policy (3)
Understanding federal, state and local policy issues affecting families. Role of family life educator in promoting a family-friendly perspective in policy making. Prerequisite: GERO 44030.

44030 Family Life Education Methodology (3)
Developing teaching methods and techniques for family life education and the study of family life education content areas. Prerequisite: GERO 44030.

44031 Intergenerational Family Caregiving (2)
Intergenerational concerns of family caregivers across the lifespan, coping resources, formal and informal support systems. Prerequisite: none.

44032 Nonprofit Fundraising and Grantwriting (3)
Provides comprehensive preparation in planning, seeking and acquiring funding from available resources in supporting the mission of nonprofit human service agencies. Prerequisite: none.

44033 Nonprofit Management I (3)
An overview of nonprofit/human service organizations, including conflict resolution, human resource management, risk management, marketing, ethics, leadership, intercultural sensitivity and social entrepreneurship. Prerequisite: none.

44034 Nonprofit Management II (3)
An overview of nonprofit/human service organizations, including conflict resolution, human resource management, risk management, marketing, ethics, leadership, intercultural sensitivity and social entrepreneurship. Prerequisite: none.

44092 Practicum in Human Development and Family Studies (3-10)
(Repeatable for a total of 20 credit hours) Observation and participation in child, family and social service agencies. One class discussion per week. S/U grading. Prerequisites: human development and family studies (HDFS) majors and HDFS 44018 and senior standing with an overall GPA of 2.50.

HUMAN SERVICES TECHNOLOGY (HST)**

11000 Introduction to Human Services (1)
A survey of the role of human service technologies, their professional and ethical responsibilities, employment possibilities and avenues for professional advancement. Prerequisite: none.

11001 Group Process in Human Services (2)
The structure and function of groups, focusing on problem solving and communication in human service agencies. Prerequisite: none.

11002 Survey of Community Resources (3)
A survey of providers at the federal, regional, state and local levels, including services provided and regulations of private and public agencies. Prerequisite: HST 11000.

21000 Dynamics of Helping Relationship for Human Services Technologist (3)
The dynamics of helping relationship in human service agencies. Skill development in listening and provision of assistance to clients is emphasized. Prerequisite: HST 11001. Corequisites: HST 21001 and 21002.

21001 Assessment of Client Needs (3)
An introduction to the evaluation of client needs and assessment of client condition. Prerequisite: HED 21050. Corequisites: HST 21000 and 21002.

21002 Client Advocacy and Case Management in Human Service Organizations (3)
Assessment of case management strategies with an emphasis on the role of the client advocate in the human service setting. Prerequisite: HST 21001. Corequisite: HST 21192.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
21092  Internship in Human Services Technology I (3)*  
Supervised field experience in a human service agency (minimum of nine hours per week). Joint university-agency supervision. Prerequisite: advisor approval. Corequisites: HST 21000 and 21001.

21192  Internship in Human Services Technology II (3)*  
Continued supervised field experience in a human services agency (minimum nine hours per week). Joint university-agency supervision. Prerequisite: HST 21092 and special approval. Corequisite: HST 21002.

**INDUSTRIAL ENGINEERING AND RELATED TECHNOLOGIES (IERT)**

12005  Applications in Computer-Aided Design (2)  
Course for training on the use of a popular, computer-aided drafting and design software. Practice with the advanced features of the software applicable to modern design in the graphics, mechanical, industrial and electronics fields. Prerequisite: none.

21096  Individual Investigation in Systems/Industrial Engineering Technology (1-4)*  
Independent, in-depth research of a systems/industrial engineering technology topic supervised and coordinated by an engineering technology faculty member. Prerequisite: special approval.

22000  Statistical Process Control (4)  
Process variability, process monitoring, statistical methods using control charts for variables and attributes; Acceptance sampling plans; process capability, process adjustment, process improvement. Prerequisite: special approval.

22001  Motion and Time Study (3)  
Motion economics, SPC, activity charts, methods improvement, use of standard data method of making studies, computerized line balancing. Prerequisite: none.

22003  Supervision and Labor Relations (5)  
Practical methods and techniques for improving supervision and labor relations in industry. Personnel and performance evaluation, implementing policy, labor contracts, collective bargaining, wage and salary administration. Prerequisite: none.

22004  Facilities Engineering (2)  
Principles of facilities engineering to meet production needs. Applications of material-handling devices, plant layout drawings, templates, models and RMS systems. Prerequisite: none.

22005  Production and Inventory Control (2)  
Basic principles, objectives and influencing factors of production control in industrial organizations of various kinds and their effects on costs. Applied planning and scheduling. Prerequisite: sophomore standing.

22006  Economic Decision Analysis (3)  
Economic decision making for industrial engineering technology with applications emphasis, estimating economic elements, interest and economic equivalence, methods of comparing alternatives and evaluating replacement alternatives. Prerequisite: none.

22007  Cooperative Work Experience (2)*  
(Repeatable for a total of 6 hours) University-industry work study plan in which student alternates periods of study at the university with periods of employment in industry. Prerequisite: special approval.

22008  Taguchi Process Improvement (3)  
Process and product improvement through reduction of variation. Design of experiments and interpretation of results. Analysis of variance, orthogonal arrays and Taguchi techniques. Prerequisite: MATH 19002.

22010  Computer Integrated Manufacturing (3)  
Planning, developing and implementing a strategy to control and coordinate all the engineering, production and business operations within a manufacturing enterprise. Prerequisite: none.

22009  Special Topics (1-3)*  
(Special topics) Special topics in systems/industrial engineering technology. Prerequisite: special approval.

**INFORMATION ARCHITECTURE AND KNOWLEDGE MANAGEMENT (IAKM)**

41096  Individual Investigation in Information Architecture, Information Use or Knowledge Management (1-3)  
Research or individual investigation for baccalaureate-level students at or above the junior level. IP grade permissible. Prerequisites: written special approval of instructor.

**INFORMATION TECHNOLOGY FOR ADMINISTRATIVE PROFESSIONALS (ITAP)**

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

16620  Word Processing I (3)  
Builds expertise in creating business documents applying the basic features of popular word processing software. Emphasis on hands-on experience. Lecture two hours, laboratory two hours. Prerequisite: none.

16621  Word Processing II (3)  
Design and create documents by using advanced features of word processing software. Lecture two hours, laboratory two hours. Prerequisite: ITAP 26620.

16625  Business Presentations (2)  
Development and production of professional computer-projected presentation materials using popular software. Includes use of graphic design techniques, color, layout, design principles and transparencies. Lecture one hour, laboratory two hours. Prerequisite: none.

16636  Data Management for Administrative Professionals (3)  
Introduction to the role of data and its management and evolution to information and knowledge in business environments. Prerequisite: none.

16639  Database Applications (3)  
Concepts, terminology and use of current database software to manage and retrieve business information. Emphasis on hands-on experiences. Lecture two hours, laboratory two hours. Prerequisite: none.

16649  Database Applications for Medical Billing (1)  
Overview database course designed for medical billing certificate majors as they add, query, and create forms and generate reports for medical environments. Prerequisite: medical billing certificate (C123) majors.

16650  Systems Studies for Medical Billing and Coding (1)  
Overview course to link knowledge of body systems with coding procedures in medical facilities. Corequisite: ITAP 26651 or HED 14020.

16680  Computer Keyboarding (1)  
Basic keyboarding course using computers for students having no previous keyboarding instruction or a speed of less than 30 wpm. To pass the course, students must keyboard above 30 wpm for three minutes with no more than three errors. Prerequisite: none.

26611  Spreadsheet Applications (3)  
Use of electronic spreadsheets from beginning to advanced applications that may prepare for software certification. Lecture two hours, laboratory two hours. Prerequisite: none.

*Course ineligible to be repeated for GPA recalculation.  
**Courses offered only at Regional Campuses.
26613 Machine Transcription (3)
Basic transcription of machine dictation; application of language skills to typical and specialized office documents; and mastery of proofreading/editing procedures and techniques. Prerequisite: ITAP 16620.

26622 Desktop Publishing I (3)
Study and application of the principles of proper document design using high-end desktop publishing software for newsletters, brochures, reports, forms and other computer-based business documents. Lecture two hours, laboratory two hours. Prerequisite: ITAP 16620.

26623 Desktop Publishing II (3)
High-end layout/design and illustration software. Includes advanced documents, Web publishing, makeovers, computer graphic concepts and formatting, image editing techniques and the use of color. Lecture one hour, laboratory four hours. Prerequisite: ITAP 26622.

26635 Administrative Resource Management (3)
Explores how office professionals can apply resource management skills to the areas of space/workflow, forms/budgetary control, staff and materials/supplies. Prerequisite: none.

26636 Project Management for Administrative Professionals (1)
Provides the basic tools needed to effectively manage projects and to automate and streamline such functions as resource allocation, work scheduling and communication. Project management software is used in the course. Lecture one-half hour, laboratory one hour. Prerequisite: none.

26637 Specialized Machine Transcription (3)
Transcription of machine dictation emphasizing documents relating to the legal or medical professions. Includes application of language skills and mastery of proofreading/editing procedures and techniques. Prerequisite: ITAP 16620.

26638 Business Communications (3)
Theory and application of oral and written business communication with emphasis on business letters, reports, employment process, visual presentations and electronic communications. Basic word processing skills are suggested. Prerequisite: ENG 11011 or HONR 10197.

26650 Medical Billing Procedures (3)
Introductory course in the preparation of various medical documents and forms in the health care industry. Use of computers and various word processing software will be included. Lecture two hours, laboratory two hours. Prerequisite: none.

26651 Medical Billing Terminology (2)
Analysis of the language and terms used in medical billing environments. The medical billing context is used to frame the study of prefixes, suffixes and root words by specialty. Prerequisite: none.

26655 ICD Coding (3)
Basic medical coding using the current version of the ICD classification system and nomenclature. Prerequisite: ITAP 26651 or HED 14020.

26656 CPT Coding (3)
Introduction to coding rules for the CPT and Level II coding system, incorporating and applying ICD rules to code patient services. Prerequisite: ITAP 26655.

26691 Seminar for Administrative Professionals (2)
Refines job search strategies, integrates coursework with realistic office settings, presents interpersonal/ethical issues and provides outreach activities, emphasizing the total quality management environment. Prerequisites: sophomore standing.

26692 Internship for Administrative Professionals (1-3)
Repeatable for a total of 4 hours Supervised field experience of 10 hours per week paid or seven hours per week unpaid in a business environment functioning as an administrative professional. Prerequisites: sophomore standing, 2.00 GPA or better in the major. Special approval required.

26695 Special Topics in Information Technology for Administrative Professionals (1-3)
(Repeated registration permissible) Special topics in information technology topics for administrative professionals. Prerequisite: special approval.

26696 Individual Investigation: Information Technology for Administrative Professionals (1-3)
Independent, in-depth research of an ITAP topic supervised and coordinated by an ITAP faculty member. Prerequisites: 12 credit hours of ITAP courses and special approval of a full-time ITAP faculty member.

INSTRUCTIONAL TECHNOLOGY (ITEC)

19625 Educational Technology (3)
Identification, evaluation, design, preparation and efficient use of education technology as instructional resource in classroom relating to principles of learning/teaching. Develop classroom communication abilities through lectures, discussions, modeling, laboratory experiences, completion of comprehensive project. Prerequisite: minimum grade of C (2.0) in EDPF 29535 and admission to one of the following majors: earth science (ESCI), integrated language arts (INLA), integrated mathematics (IMTH), integrated science (ISCI), integrated social studies (INSS), life science (LSCM), life science chemistry (LCSM), physical science (PHSC), school health education (SHEH), early childhood education (ECED), middle childhood education (MCED), gifted (GFTD), intervention specialist (INSP), integrated business education (IBED), family and consumer sciences education (FSE), marketing education (MKT), art education (ARTE), music education (MUSE) or early childhood education technology (ECET).

37400 Introduction to Educational Media (2)
Principles and techniques in the selection and utilization of educational media in teaching/learning situations. Prerequisite: junior standing.

40093 Variable Title Workshop in Educational Media (1-4)
Variable topic workshop designed to respond to curriculum trends and issues and specialized needs. S/U grading. Prerequisite: special approval.

47401 Design and Production of Educational Media (3)
Students apply effective approaches to the design and production of instructional media. The course develops skills in photography, audio and television. Prerequisite: junior standing.

47402 Organization and Administration of Educational Media Programs and Centers (3)
The planning, organizing, administering and evaluating of educational media programs and centers for schools, higher education, industry or churches. Prerequisite: ITEC 57400.

47403 Instructional Design (3)
Enables participants to design instructional sequences based upon a systematic approach and incorporating media as integral components. Prerequisite: junior standing.

47411 Designing Visuals for Instruction (3)
Investigation of historical, cultural and aesthetic dimensions of instructional visual design. Focus on design of instructional visuals across media, including print, video and computer-based technology. Presentations, laboratory activities. Prerequisite: none.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
**INTEGRATED HEALTH STUDIES (IHS)**

10000  Careers in Health Sciences and Human Services (3)
This course presents the diverse career options in the fields of health sciences and human services. Academic preparation and credentialing for professions will be included. Prerequisite: none.

40091  Seminar for Practicum in Integrated Health Studies (2)
This course presents and integrates the role of scientists, practitioners and administrators in the health care and human service professions as they attempt to meet the needs of the individual in diverse environments. Current issues will be addressed. 400 hours observation/work experience in health/human service-related fields required prior to registration for this course. Prerequisite: senior standing and special approval. Corequisite: IHS 44092.

44009  Research Design and Statistical Methods in the Health Professions (3)
Fundamental concepts and procedures for systematic collection, analysis and interpretation of quantitative and qualitative data in health-related fields; includes group and single-subject designs and use of parametric and nonparametric statistics. Prerequisite: PSYC 21621.

32091  Integrated Life Sciences Seminar III (2)
(Repeatable for a total of 4 credits) Continuation of ILS 21092. S/U grading. Prerequisites: ILS 21091 and 21092 and integrated life sciences (ILS) major.

32092  Integrated Life Sciences Seminar IV (2)
Continuation of ILS 32091. S/U grading. Prerequisites: ILS 21091 and 21092 and 32091 and integrated life sciences (ILS) major.

**INTERIOR DESIGN (ID)**

14501  Studio Problems in Interior Design I (4)
Studio problems in interior design is a course for the beginning student whose interest is in interior space design. Prerequisite: TECH 11083. Special fee: $80.00 flat fee—subject to change.

30392  Psychological Helping Skills for Medicine (3)
Basic strategies for helping persons in crisis. Includes guided self-exploration of attitudes, values and personality styles. IP grade permissible. Prerequisite: integrated life sciences (ILS) major.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
14512 Interior Design Graphics I (3)
Studio based course introducing concepts of architectural drawing and sketching techniques including plan, elevation, section and perspective. Prerequisite: interior design (ID) major. Special fee: $60.00 flat fee—subject to change.

24502 Studio Problems in Interior Design II (4)
Special problems dealing with design of residential and related spaces, traffic flow, placement of furnishings, emphasis on color and textural experience and lighting of space. Practical, integrated approach. Prerequisites: interior design (ID) major and ID 14501. Special fee: $80.00 flat fee—subject to change.

24510 Textiles in the Built Environment (2)
A concise background in textile science is established followed by an in-depth discussion of the selection and application of textiles by interior designers and architects. Prerequisite: interior design (ID) major.

24511 Housing in Today’s Society (3)
Relationships of well-being of individuals and families in the life cycle for a well-planned residence. Evaluation of housing, planning, financing and modern technological developments. Prerequisite: none. Special fee: $30.00 flat fee—subject to change.

24513 Survey History of Interiors (4)
Chronological study of housing and furnishings from ancient civilizations to present, emphasizing cultural and social forces that contributed to evolution of various styles. Prerequisite: none. Not open to interior design (ID) majors.

24522 Methods and Materials for Interior Design (3)
Information regarding the manufacture, construction and composition of the materials used in furnishings and surface materials in interior design. Proper methods and installation procedures required in the use of materials for interior furnishing products. Prerequisite: ID 24510. Corequisite: ID 34503. Special fee: $60.00 flat fee—subject to change.

34515 Computer Aided Design for Interior Designers (3)
Introduction to application of computer drawing and drafting techniques used in interior design. Study of 2-D and 3-D techniques as well as symbol libraries. Prerequisites: ID 34503 and 34522.

34522 Variable Title Workshop in Interior Design (1-4)
Workshops dealing with variable topics related to the interior design profession. Learning experiences provided in a broad spectrum of specialties. Prerequisite: interior design (ID) major.

41093 Special Topics in Interior Design (1-4)
Discussion of a major topic or issue within the profession of interior design. Repeat registration permitted. Prerequisite: interior design (ID) major.

41096 Individual Investigation in Interior Design (1-3)
Independent study of interior design and related topics under the guidance of a faculty member. Prerequisite: interior design (ID) major.

44505 Studio Problems in Interior Design V (2)
Introduction to principles of historic design focusing on hands-on and on-site design techniques. For interior design majors only. Prerequisites: ID 34504 and 44534. Corequisite: ID 44535. Special fee: $40.00 flat fee—subject to change.

44506 Studio Problems in Interior Design VI (4)
Special problems concerning the design of large-scale commercial environments. Prerequisites: TECH 31015 and ID 44505. Corequisite: ARCH 30501. Special fee: $80.00 flat fee—subject to change.

44512 Historic Furnishing Textiles (2)
Designed to accustom students to historic textiles created primarily for use in interior architecture. Focus is on aesthetics, design and construction. A comprehensive adaptive reuse or restoration project is required. Prerequisites: ID 44534 and 44535. Special fee: $40.00 flat fee—subject to change.

44524 Anglo-American Domestic Interiors, Early Colonial Period (3)
An in-depth study of the Anglo-American interior and domestic furnishings with concentration on the preservation and contemporary usage of both interior architectural spaces and domestic objects. Prerequisite: ID 44512.

44525 Lighting Application in Interior Spaces (3)
Design application of lighting technology for various interior spaces. Field trips to study lighting installations. Prerequisite: ID 34503. Special fee: $60.00 flat fee—subject to change.

44526 Lighting Design in Historic Spaces (3)
Overview of historic lighting forms and techniques with an emphasis on Anglo-American design, 18th to 20th centuries. Focus of course will be application of modern techniques to historic design problems. Prerequisites: ID 44505 and 44525 and ARCH 30501. Special fee: $51.00 flat fee—subject to change.

44527 Study Tours (1-10)
A series of study tours for in-depth, first-hand experiences of historic sites, markets, manufacturing facilities and attendance at product seminars. Prerequisite: junior or senior standing.

44534 History of Interiors to 1600 (4)
A chronological study of housing and furnishings from civilization to the 15th century. Prerequisites: ID 34504; and ARTH 22006 and 22007; or ARCH 10011 and 10012; and special approval. This course may be used to satisfy the writing-intensive requirement with approval of major department. Special fee: $80.00 flat fee—subject to change.

44535 History of Interiors to 1800 (4)
A chronological study of housing and furnishings from the Renaissance to the Victorian Period—16th to 19th centuries—and 20th century. Prerequisite: ID 44534. Special fee: $80.00 flat fee—subject to change.

44536 History of Interiors to 1800 (4)
A chronological study of housing and furnishings from the Renaissance to the Victorian Period—16th to 19th centuries—and 20th century. Prerequisite: ID 44534. Special fee: $80.00 flat fee—subject to change.

44536 History of Interiors to 1800 (4)
A chronological study of housing and furnishings from the Renaissance to the Victorian Period—16th to 19th centuries—and 20th century. Prerequisite: ID 44534. Special fee: $80.00 flat fee—subject to change.

44536 History of Interiors to 1800 (4)
A chronological study of housing and furnishings from the Renaissance to the Victorian Period—16th to 19th centuries—and 20th century. Prerequisite: ID 44534. Special fee: $80.00 flat fee—subject to change.

44536 History of Interiors to 1800 (4)
A chronological study of housing and furnishings from the Renaissance to the Victorian Period—16th to 19th centuries—and 20th century. Prerequisite: ID 44534. Special fee: $80.00 flat fee—subject to change.

44536 History of Interiors to 1800 (4)
A chronological study of housing and furnishings from the Renaissance to the Victorian Period—16th to 19th centuries—and 20th century. Prerequisite: ID 44534. Special fee: $80.00 flat fee—subject to change.

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ITALIAN (ITAL)

For placement and credit in foreign language courses see Arts and Sciences—Foreign Language Requirement—Placement and Credit.

15201 Elementary Italian I (4)
An introduction to the Italian language in the context of Italian culture. Prerequisite: none.

15202 Intermediate Italian II (4)
A continuation of the introduction to the Italian language in the context of Italian culture. Prerequisite: ITAL 15201.

15204 Basic Conversational I (2)
Exposure to basic grammar and to current Italian useful to travelers. Not applicable to fulfillment of foreign language requirement. Prerequisite: special approval.

15205 Basic Conversational II (2)
Continuation of ITAL 15204. Prerequisite: ITAL 15204.

25201 Intermediate Italian I (3)
Continued development of speaking, listening, reading and writing skills using a variety of cultural materials. Prerequisite: ITAL 15202.

25202 Intermediate Italian II (3)
Continuation of ITAL 25201. Prerequisite: ITAL 25201.

25209 Field Study (1-6)
(Repeatable for a total of 6 hours) For residence and/or field research in an Italian-speaking community. Prior to registering for this course, student must obtain departmental special approval. IP grade permissible. Prerequisite: special approval.

35211 Italian Composition and Conversation I (3)
Study and practice of written and oral Italian with emphasis on acquisition of written and oral proficiency in the language. Prerequisite: ITAL 25202.

35213 Italian Composition and Conversation II (3)
Advanced practice in speaking and writing the Italian language. Prerequisite: ITAL 35211.

35331 Early Italian Literature (3)
A survey of Italian literature from its medieval origins to the Baroque period. Prerequisite: ITAL 35211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

35332 Recent Italian Literature (3)
This course surveys the major movements and authors from the Baroque period through the 20th century. Prerequisite: ITAL 35211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

35421 Italian Civilization (3)
Lectures, readings, oral and written reports on outstanding features of the culture and civilization of Italy. Prerequisite: ITAL 25202.

35597 Colloquium (3)
Variable topic course deals with single literary theme in Italian literature or a single author. May be offered in Italian or in English translation. Prerequisite: special approval.

45093 Variable Title Workshop in Italian (1-6)
Workshops individually designed to provide instruction and training in specific areas of Italian studies. S/U grading. Prerequisite: departmental special approval.

45096 Individual Investigation (1-3)
(Repeatable for a total of 6 hours) Allows the advanced, serious student to carry out research/study project on Italian literature, language or culture. Prior approval of supervising faculty member, department required. IP grade permissible. Prerequisites: ITAL 25202 and junior standing and special approval.

45356 Dante (3)
This course studies Dante’s Divine Comedy in its entirety (Inferno, Purgatory, and Paradise) in the original language. Prerequisite: 6 hours of Italian (ITAL) at the 30000 level.

JAPANESE (JAPN)

For placement and credit in foreign language courses see Arts and Sciences—Foreign Language Requirement—Placement and Credit.

15101 Elementary Japanese I (4)
Introduction to modern standard Japanese in the context of Japanese culture. Prerequisite: none.

15102 Elementary Japanese II (4)
A continuation of the introduction to modern standard Japanese in the context of Japanese culture. Prerequisite: JAPN 15101.

25201 Intermediate Japanese I (3)
Continued development of speaking, listening, reading and writing skills, using a variety of cultural materials. Prerequisite: JAPN 15101.

25202 Intermediate Japanese II (3)
Continuation of JAPN 25201. Prerequisite: JAPN 25201.

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

35101 Advanced Intermediate Japanese I (4)
A continuation of the study of modern standard Japanese in the context of Japanese culture. Further development of listening, speaking, reading and writing skills, using a variety of materials. Prerequisite: JAPN 25202.

35102 Advanced Intermediate Japanese II (4)
Continuation of JAPN 35101. Prerequisite: JAPN 35101.

JOURNALISM AND MASS COMMUNICATION (JMC)

12001 Elementary Photography (2)
Introduction to fundamentals and techniques of still and motion picture photography. Terminal course for students who do not have photography requirements. Prerequisite: none. Special fee: $30 flat fee—subject to change.

20001 Media, Power and Culture (3)
Fosters critical understanding of mass media in their historical, ideological, economic and cultural contexts. Examines what forces influence media and how media influence consumers. Not open to journalism and mass communication pre-majors or majors. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and the diversity requirement.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
**20003 Introduction to Mass Communication (3)**
Introduction to various fields of mass communication with a particular emphasis on evolution of new media technologies. History of technological and cultural change leading to the present media forms and consideration of new media. Prerequisites: journalism and mass communication (JMC) major.

**20004 Media Writing (3)**
Introduces students to variety of writing skills used in various media professions and demonstrates how writing types vary by audience. Incorporates grammar skills as part of the writing process. Prerequisites: 2.75 overall GPA and pre/corequisite: JMC 20003 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) or integrated language arts (INLA) major. Special fee: $30 flat fee—subject to change.

**20005 Fundamentals of Media Messages (3)**
Working with messages for print, broadcast, electronic and new media outlets. Course may not be taken for credit or applied toward any requirements by a journalism and mass communication major. Prerequisite: communications studies (COMM) major.

**20007 Media Information Gathering (3)**
Introduction to basic methods of gathering information in various fields of mass communication. Hands-on experience with qualitative, archival and quantitative methods. Methods include interviews, online searching and surveys. Prerequisite: 2.75 overall GPA and JMC 20003 with a grade of C- (1.7) or better.

**20008 Audience Analysis and Research (3)**
An overview of the principles used to understand, interpret and design audience research. This includes terminology, methodologies of syndicated research, audience ratings analysis and psycho- graphic/lifestyle data. Prerequisite: none.

**21001 Principles of Advertising (3)**
Advertising history, purposes, techniques, media and research; analysis of functions of advertising organizations. Prerequisite: none.

**22000 Photography Basics (1)**
Fundamentals of b/w and color photography and digital manipulation software. Introduction of basic themes of journalistic photography including flash photography. Student furnishes 35mm or APS camera with flash. Disposable cameras not acceptable. Prerequisite: 2.75 overall GPA and integrated language arts (INLA) or electronic media (ELMD) or new (NEWS) major. Special fee: $20 flat fee—subject to change.

**22001 Photography (3)**
(Cross-listed with VCD 28000) Basic camera and darkroom techniques to provide a better understanding of photography as a creative and journalistic skill. Prerequisite: 2.75 overall GPA; and art education (ARTE) or visual journalism (VJNL) major. Special fee: $55 flat fee—subject to change.

**22002 Videography Basics (1)**
Instruction in basic camcorder videography/video editing techniques to provide understanding of processes as creative/journalistic skills and as practical application of knowledge acquired in the prerequisite class. Prerequisites: 2.75 overall GPA; and journalism and mass communication (JMC) or integrated language arts (INLA) or visual communication design (VCD) major. Special fee: $20 flat fee—subject to change.

**22003 Videography Basics II (1)**
Emphasis on video editing for broadcast news and electronic media production applications using computer video editing skills. Prerequisite: 2.75 overall GPA; and JMC 22002 with a grade of C- (1.7) or better and journalism and mass communication (JMC) major.

**22004 Visual Storytelling (3)**
Technical and digital skills needed to produce photos that communicate. Course will stress narrative work, detailed caption information and reporting. Prerequisites: JMC 22001 and journalism and mass communication (JMC) major.

**22005 Journalism Fundamentals (3)**
Instructor will work with students to develop writing and production skills as part of the writing process. Prerequisites: 2.75 overall GPA and pre/corequisite: JMC 20003 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) or integrated language arts (INLA) major. Special fee: $30 flat fee—subject to change.

**22006 Journalism I (3)**
Instructor will work with students to develop writing and production skills as part of the writing process. Prerequisites: 2.75 overall GPA and pre/corequisite: JMC 20003 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) or integrated language arts (INLA) major. Special fee: $30 flat fee—subject to change.

**22007 Videography I (1)**
Instruction in basic camcorder videography/video editing techniques to provide understanding of processes as creative/journalistic skills and as practical application of knowledge acquired in the prerequisite class. Prerequisites: 2.75 overall GPA; and journalism and mass communication (JMC) or integrated language arts (INLA) or visual communication design (VCD) major. Special fee: $20 flat fee—subject to change.

**22008 Broadcast Beat Reporting (4)**
Gathering and writing news: interviewing techniques, cultivating sources, developing beats, meeting deadlines. Includes campus reporting for Daily Kent Stater. Prerequisites: 2.75 overall GPA and JMC 22001 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major. Special fee: $40 flat fee—subject to change.

**22009 Broadcast Beat Reporting II (4)**
Gathering and writing news: interviewing techniques, cultivating sources, developing beats, meeting deadlines. Includes campus reporting for Daily Kent Stater. Prerequisites: 2.75 overall GPA and JMC 22001 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major. Special fee: $40 flat fee—subject to change.

**22010 Visual Storytelling I (3)**
Technical and digital skills needed to produce photos that communicate. Course will stress narrative work, detailed caption information and reporting. Prerequisites: JMC 22001 and journalism and mass communication (JMC) major.

**22011 Introduction to Graphic Communications (2 or 3)**
Concepts and practices of transferring information graphically, whether it be picture or symbol, in single or multiple copies onto paper, cloth, metal, plastic, glass or other materials. Prerequisite: 2.75 overall GPA and ENG 21011 or HONR 10297. Special fee: $15 flat fee—subject to change.

**22012 Visual Storytelling II (3)**
Technical and digital skills needed to produce photos that communicate. Course will stress narrative work, detailed caption information and reporting. Prerequisites: JMC 22001 and journalism and mass communication (JMC) major.

**22013 Visual Storytelling III (3)**
Technical and digital skills needed to produce photos that communicate. Course will stress narrative work, detailed caption information and reporting. Prerequisites: JMC 22001 and journalism and mass communication (JMC) major.

**23001 Introduction to Electronic Media Video Production (3)**
Theoretical and practical application of program production for video. Prerequisites: 2.75 overall GPA and JMC 20003 and 22002 both with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.

**23002 Electronic Media Video Production (3)**
Theoretical and practical application of program production for video. Prerequisites: 2.75 overall GPA and JMC 20003 and 22002 both with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.

**23003 Electronic Media Audio Production (3)**
Theoretical and practical application of program production for audio production. Prerequisites: 2.75 overall GPA and JMC 20003 and 22002 both with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.

**23004 Writing for Electronic Media (2)**
Application of standard writing styles and formats in the electronic media. Writing practice in commercials, continuity, promotions and introductory scriptwriting techniques. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004 and a journalism and mass communication (JMC) major and a core of at least 70 percent on the Grammar Usage and Punctuation (GUP) test.

**23005 Mass Media Research (3)**
Analysis of mass media research emphasizing quantitative social science inquiry and media applications leading to practical and critical understanding of research. Prerequisites: 2.75 overall GPA and JMC 20003 with a grade of C- (1.7) or better and MATH 11009 and a journalism and mass communication (JMC) major.

**23006 Digital Editing (3)**
Theoretical and practical application of program production for video. Prerequisites: 2.75 overall GPA and JMC 20003 and 22002 both with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.
30034 Programming for Electronic Media (3)
Background analysis of radio, TV, cable and internet programming and the relationship to audience needs, interests, expectations and audience measurement procedures. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004 and a journalism and mass communication (JMC) major and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test.

31002 Advertising Copywriting (3)
Examination and practice in various forms of advertising copywriting and their applications. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004; and JMC 21001, with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test.

31003 Advertising Media Planning (3)
Analysis, selection and scheduling of advertising media. Examination of advertising research technique and application. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004; and JMC 21001, with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test.

31011 Creative Advertising Strategies (3)
Advertising majors learn problem-solving techniques, which they will apply to business and creative proposals designed to promote products and/or services. Development of good, clear writing skills is a key component of the course. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004 and JMC 21001 with a grade of C- (1.7) or better.

22001 Photojournalism I (3)
Production of photographs for newspapers, magazines and online news media. A laboratory course emphasizing color and black-and-white photography. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004; and JMC 22001, with a grade of C- (1.7) or better and VCD 37000 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test. Special fee: $55 flat fee—subject to change.

22002 Photojournalism II (3)
Continuation of JMC 32001. Advanced news and feature photography for newspapers, magazines and online, including a collaborative project. May be repeated once. Prerequisite: 2.75 overall GPA and JMC 32001 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major. Special fee: $55 flat fee—subject to change.

20003 Photo Technology (3)
(Cross-listed with VCD 38003) Photographic materials and processes. Emulsion sensitometry (applied as the "Zone System"). Photographic lens testing, etc. Camera and hand-held exposure meter needed. Prerequisites: JMC 22001 and journalism and mass communication (JMC) major. Special fee: $45 flat fee—subject to change.

20004 Advanced Photography (3)
(Cross-listed with VCD 38004) Use of specialized equipment, materials and techniques. Student furnishes own view camera. Special equipment furnished. Prerequisites: JMC 22001 and journalism and mass communication (JMC) major. Special fee: $45 flat fee—subject to change.

20008 Photo-Design Techniques (3)
(Cross-listed with VCD 38008) Use of unusual photographic materials and techniques in design of images for many purposes. Prerequisite: JMC 22001. Special fee: $45 flat fee—subject to change.

22002 Audio Field Production (3)
A study of the craft and craft of audio field production, providing analysis and practice of remote information gathering techniques and music recording. Prerequisites: 2.75 overall GPA and JMC 23031 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test. Special fee: $60 flat fee—subject to change.
40002 Reporting for Mass Media (3)
Theory and practice in newswriting and reporting; news values and news judgment; lead and story development; techniques of gathering information and dealing with sources of news; writing for deadline. Course may not be taken for credit, or applied toward any requirements by a journalism and mass communication (JMC) major or minor without special approval. Prerequisite: 2.75 overall GPA and special approval. Special fee: $30 flat fee—subject to change.

40003 Editing for Mass Media (3)
Theory and practice in copy editing, headline writing, and editing photographs and information graphics for print and online publications. Hours do not count toward degree. Prerequisite: 2.75 overall GPA and special approval. Special fee: $30 flat fee—subject to change.

40004 Computer Assisted Reporting (3)
Computer analysis of large data sets, focusing on government, court, police records for preparation of news stories; basics of online searching; software and databases. Prerequisite: JMC 26007 or 26008 either with a grade of C- (1.7) or better. Special fee: $30 flat fee—subject to change.

40005 Feature Writing (3)
Researching, writing and placement of feature stories in publications. Prerequisites: JMC 26007 with a grade of C- (1.7) or better. Special fee: $30 flat fee—subject to change.

40006 Law of Mass Communication (3)
Libel and slander; privacy, copyright, obscenity; regulation of advertising, broadcasting and corporate speech; access to government; legal problems of new media. Prerequisites: journalism and mass communication (JMC) major and senior standing and special approval needed from department.

40007 Reviewing the Arts (2)
Reviewing and criticizing of performing, visual and literary arts. Emphasis on books, film, TV and theatre. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004 or 26001 with a C- (1.7) or better and junior or senior standing.

40008 History of American Mass Communication (3)
Evolution of the American mass communication/media from beginning to present day. Prerequisite: junior or senior standing.

40009 Comparative Media Systems (3)
Study of the forms, organization, scope and modes of operation of media systems in foreign lands. Also examines agents, channels and contents of international communication. Prerequisite: 2.75 overall GPA and junior or senior standing and special approval.

40010 Ethics and Issues in Mass Communication (3)
Ethical problems and issues in mass communication within a framework of basic theories, functions and social roles of the mass media. Prerequisites: 2.75 overall GPA and a journalism and mass communication (JMC) major and senior standing and at least 18 hours in JMC courses with a grade of C- (1.7) or better, including a grade of B- (2.7) or better in JMC 20004 and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test. This course may be used to satisfy the writing-intensive requirement with approval of major department.

40012 Online Journalism (3)
Study and evaluation of online news and news sites; reporting and writing for online news media; design, production and maintenance of an online news site; ethical, legal and economic issues related to online news. Prerequisite: 2.75 overall GPA and JMC 26007 or 26008 either with a grade of C- (1.7) or better. Special fee: $30 flat fee—subject to change.

40013 Television Sports Production (3)
A comprehensive study of the production of live action television sports coverage. Prerequisites: 2.75 cumulative GPA and sophomore, junior or senior standing and journalism and mass communication (JMC) major.

40015 Media Management (3)
Exploring management issues unique to media organizations and the impact of those issues on the organization’s structure, economics, markets and employees. Prerequisites: 2.75 overall GPA and a journalism and mass communication (JMC) major and senior standing and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test.

40016 Law of Advertising and Public Relations (3)
Regulation of advertising and corporate speech, first amendment, libel and privacy and legal problems of new media. Prerequisites: 2.75 overall GPA and 18 hours of JMC courses all with a grade of C- (1.7) or better and advertising (ADV) or public relations (PR) major.

40020 Audio and Still Photo Production (3)
Develop skills in telling journalistic stories by producing multimedia news stories through research and planning; reporting using digital cameras and digital audio recorders; editing photos and audio. Prerequisites: minimum C- (1.7) in JMC 22001 and journalism and mass communication (JMC) major and junior or senior standing.

40022 Film As Communication (3)
Study of the relationship of television and theatre films to the mass audience in terms of components and effects. Prerequisites: 2.75 overall GPA; and JMC 20004 with a grade of B- (2.7) or better or JMC 20005 with a grade of C- (1.7) or better.

40023 Non-traditional Journalism (3)
The study of journalistic writing that goes beyond the inverted pyramid and traditional feature story and has topics traditionally not defined as news. Students will also work as part of a team on multi-part stories. Prerequisites: minimum C- (1.7) in JMC 26007 and journalism and mass communication (JMC) major and junior or senior standing.

40027 Managing Media Diversity (3)
Aspects of diversity and how it changes our environment with emphasis on the field of mass communication. Prerequisite: none.

40030 Collaborative Online Producing (3)
The use of multimedia and interactive storytelling tools such as video, audio and graphics. Students work in teams to produce packages for online news sites and organizational videos. Prerequisites: minimum C- (1.7) in JMC 40012 and journalism and mass communication (JMC) major.

40034 Advanced Electronic Media Programming (2)
Program practices in radio, television, cable, film and new media with an emphasis on projects and written proposals regarding program strategies and tactics. Prerequisite: 2.75 overall GPA and JMC 30034 with a grade of C- (1.7) or better.

40025 Television Graphics (3)
Basic design, theory and technique in creating and preparing TV and video graphics. Prerequisites: journalism and mass communication (JMC) major and junior or senior standing.

40036 Non-linear Video Editing (3)
Introduction to planning and creating short computer video programs integrating multi-layered digital effects and transitions for application by end users in a variety of current video file formats. Prerequisites: journalism and mass communication (JMC) major and junior or senior standing.
40037  Scriptwriting for Video and Film (3)
The emphasis of the course is on writing dramatic scripts for broadcast or motion pictures. The course also includes current perspectives on market needs. Prerequisites: 2.75 overall GPA and JMC 30004 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.

40029  Special Topics in Computer Laboratory (1-3)
Selected topics of special interest not covered in depth in existing courses; offered as resources permit. Prerequisite: 2.75 overall GPA and special approval.

40092  Internship (1)
(May be repeated for a total of 2 credit hours) Experience in a professional setting under professional supervision in student's field of specialization. S/U grading; IP grade permissible. Prerequisite: 2.75 overall GPA and special approval.

40095  Special Topics (1-3)
Selected topics of special interest not covered in depth in existing courses; offered as resources permit. Prerequisite: 2.75 overall GPA.

40096  Individual Projects in Mass Communications (1-3)
Individual research projects in mass communications. Letter grades and IP grade permissible. Prerequisites: 2.75 overall GPA and junior or senior standing and special approval.

40099  Senior Honors Project (2-4)
Thesis or other independent study project in mass communication. IP grade permissible. Prerequisite: 2.75 overall GPA and junior or senior standing and special approval.

40192  Radio-Television Internship (1)
(May be repeated for a total of 2 credit hours) Experience, under professional supervision, in a radio or television station or other industry using electronic audio or video communications. S/U grading; IP grade permissible. Prerequisite: 2.75 overall GPA and special approval.

40193  Variable Title Workshop in JMC (1-3)
Workshop setting dealing with topics in mass communications. S/U grading. Prerequisite: 2.75 overall GPA and special approval.

40196  Independent Study in Radio and Television (1-3)
(Repeatable for a total of 6 hours) Research and writing on topics approved by the students' advisors and study directors. IP grade permissible. Prerequisites: junior or senior standing and special approval.

42007  Photo-Illustration Techniques (3)
(Cross-listed with VCD 48007) Creative photography for advertising and editorial uses. Assignments made in an art director/photographer relationship. Critique by professionals in addition to academic evaluation. Prerequisites: JMC 32004 and 42005 both with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major. Special fee: Minimum of $45 flat fee—subject to change.

44040  Concept Psychographics (3)
Analysis of media consumers utilizing demographic, attitudinal and lifestyle variables compared with more traditional approaches. Applications for programming, advertising and public relations are examined. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004 and JMC 30034 with a grade of C- (1.7) or better and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
44045 Promotions for Electronic Media (3)
Fundamental and latest trends in broadcast and cable promotion. Prerequisites: 2.75 cumulative GPA and journalism and mass communication (JMC) major.

44050 Audio for Video (3)
Understanding of the sonic aspects of visual productions including video studio, video field and online applications. Prerequisites: 2.75 cumulative GPA and journalism and mass communication (JMC) major.

46000 Newspaper Design (3)
Design of newspapers from small inside pages to elaborate feature pages. News judgment. Basic information graphics and photo editing. Prerequisites: 2.75 overall GPA and JMC 26001; and JMC 22000 or 22001; and VCD 37000 all with a grade of C- (1.7) or better. Special fee: $45 flat fee—subject to change.

46001 Information Graphics (3)
(Cross-listed with VCD 43007) Introduction to shapes, color, type and combinations of these for computer-designed news graphics: maps, charts, graphs and diagrams. Prerequisites: 2.75 overall GPA and a grade of B- (2.7) or better in JMC 20004 and VCD 37000 with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test. Special fee: $50 flat fee—subject to change.

46003 Producing Television News (3)
Introduction to the theory and practice of producing content for TV news and public affairs programs. Emphasis is placed on understanding news philosophies, storytelling story selection and rundown placement. Prerequisite: minimum C- (1.7) in JMC 26006 and journalism and mass communication (JMC) major. Special fee: $60 flat fee—subject to change.

46006 Editorial Writing (3)
Structures and purpose of editorial and column writing; study of editorial section of newspaper; practice in writing editorials. Prerequisites: 2.75 overall GPA and JMC 26007 or 26008 either with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.

46007 Reporting in Depth (3)
Techniques involved in researching, interviewing and writing in-depth news articles and analyses. Prerequisites: 2.75 overall GPA and JMC 26007 or 26008 either with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.

46009 Reporting Public Affairs (4)
Instructor and practice in reporting all areas of public affairs, including government and the courts. Use of precision journalism techniques. Prerequisites: 2.75 overall GPA and JMC 26007 or 26008 either with a grade of C- (1.7) or better, and JMC 36005 or 46000 or JMC 26007 or 26008 either with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major. Special fee: $40 flat fee—subject to change.

46016 Magazine Publishing (3)
Overview of magazine publishing—editorial, advertising, circulation and production. Analysis of magazines. Prerequisites: 2.75 overall GPA and a B- (2.7) or better in JMC 20004 and a journalism and mass communication (JMC) major and junior standing and a score of at least 70 percent on the Grammar Usage and Punctuation (GUP) test. Special fee: $30 flat fee—subject to change.

46020 Magazine Design (3)
Marriage of words and visuals for designing magazine layouts and covers in desktop publishing. Prerequisites: 2.75 overall GPA and JMC 22000 and 26001 and 46016 and VCD 37000 all with a grade of C- (1.7) or better. Special fee: $45 flat fee—subject to change.

46021 Magazine Writing and Editing (3)
Research, interviewing, writing and marketing of major magazine articles. Editing techniques for magazines. Prerequisites: 2.75 overall GPA and JMC 36005 and 40005 both with a grade of C- (1.7) or better. Special fee: $30 flat fee—subject to change.

46052 Advanced Broadcast News Practices (3)
Study of investigative news stories, newsroom operations, editing and producing broadcast news programs. Advanced projects in broadcast news. Prerequisite: 2.75 overall GPA and JMC 26008 with a grade of C- (1.7) or better. Special fee: $60 flat fee—subject to change.

46054 Broadcast Documentary (3)
Development of documentary form for radio and television. Analysis and production of documentaries. Utilization of audio and video recording and editing. Prerequisites: 2.75 overall GPA and two of the following: JMC 33033 or 33034 or 33042 or 33043 all with a grade of C- (1.7) or better. Special fee: $60 flat fee—subject to change.

46064 Broadcast Documentary (3)
Development of documentary form for radio and television. Analysis and production of documentaries. Utilization of audio and video recording and editing. Prerequisites: 2.75 overall GPA and two of the following: JMC 33033 or 33034 or 33042 or 33043 all with a grade of C- (1.7) or better. Special fee: $60 flat fee—subject to change.

47003 Teaching High School Journalism (3)
Methods and materials for teaching journalism in high school. Prerequisites: junior or senior standing and special approval of instructor. Special fee: $30 flat fee—subject to change.

47004 Desktop Publishing for High School Journalism Teachers (1)
Basics of InDesign desktop-publishing program as it relates to high school newspaper and magazines. Prerequisite: none.

47005 Advising Journalism Publications (3)
Group study of problems posed by advisors enrolled in the course. Prerequisite: JMC 47003 with a grade of C- (1.7) or better. Special fee: $30 flat fee—subject to change.

48001 Media Relations and Publicity (3)
Planning and preparation of materials for use by the news media, both on paper and online. The course explores the media relations function along with the uses and limitations of mass media in public relations practice. Prerequisites: 2.75 overall GPA and JMC 26001; and JMC 26007 or 26008; and JMC 38002 all with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major. Special fee: $30 flat fee—subject to change.

48002 Public Relations Tactics (3)
Planning and preparation of face-to-face public relations tactics, including spokesperson training for on- and off-camera appearances, special event planning, speeches and presentations with visual support and other applications of "writing for the ear." Prerequisites: 2.75 overall GPA and JMC 26001; and JMC 26007 or 26008; and JMC 38002 all with a grade of C- (1.7) or better. Special fee: $30 flat fee—subject to change.

48003 Public Relations Online Tactics (3)
Explores fundamentals of Web site planning and design and provides hands-on skills development using the full range of cybermedia techniques. Includes emphasis on writing for online audiences. Prerequisites: 2.75 overall GPA and JMC 26001; and JMC 26007 or 26008; and JMC 38002 all with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.

48006 Public Relations Publications (3)
Planning, writing and design of organizational publications, including newsletters, brochures, flyers, promotional mailers and Web sites. Course also explores the print production process. Prerequisites: 2.75 overall GPA and JMC 26001; and JMC 26007 or 26008; and JMC 38002 all with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major.

48020 Mass Media Organizations and Public Information (3)
The roles of public information and mass media in public opinion formation. Techniques of assessing/interpreting public opinion polls and creating public information strategies using mass media. Prerequisites: 2.75 overall GPA and junior or senior standing.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
48091 Seminar: Public Relations Campaigns (3)
This capstone course in the public relations major requires student teams to combine research, planning and execution into a single public relations campaign developed for a real-world organization. Prerequisites: 2.75 overall GPA and JMC 26007 or 26008; and JMC 38002 and three of these four-JMC 48001 and 48002 and 48003 and 48006 all with a grade of C- (1.7) or better.

49021 Corporate Video (3)
The use of video in corporate and organizational environments. Emphasis is placed on the structure and function of the medium within each environment. Prerequisites: 2.75 overall GPA and two of the following: JMC 33003 and 33034 and 33042 and 33043 all with a grade of C- (1.7) or better and a journalism and mass communication (JMC) major. Special fee: $60 flat fee—subject to change.

**JUSTICE STUDIES (JUS)**

12000 Introduction to Justice Studies (3)
Historical development and operational aspects of the contemporary justice systems with emphasis on emerging trends in the concept and practices of the component agencies. Prerequisite: none.

18000 Introduction to Paralegal Studies (3)
(Cross-listed with LEGT 18000) An overview of the legal system and the role of a paralegal professional. Includes legal terminology, types of laws, research, litigation, interviewing and office management. Prerequisite: none.

22100 Basic Interviewing (3)
Foundation of basic interviewing principles including communication models, question format, distortions, topic control, inhibitors, facilitators, listening, types of interviews and practical exercises. Prerequisite: JUS 12000.

22200 Police Role (3)
Systematic analysis of the police role. An examination of the related research with an emphasis on divergent perspective and development of conceptual models. Prerequisite: JUS 12000.

22301 The Investigative Process (3)
An examination of established investigative processes, techniques employed in conducting a systematic investigation and legal implications. Prerequisite: JUS 12000.

25092 Field Placement (1-6)
Observational experience under the direction of supervising faculty in a justice agency. IP grade permissible. Prerequisites: 6 credit hours of justice studies (JUS) coursework, including 12000, and special approval.

26701 Corrections (3)
Course topics include history of corrections, punishment, community corrections, correctional institutions, correctional administration, issues in corrections and future trends of corrections. Prerequisite: JUS 12000.

26704 Issues in Law and Society (3)
General treatment of the legal system with special emphasis on its origin, structure and functional consequences on issues and problems in modern society. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER).

26705 Survey of Contractual Justice Services (3)
Overview of contractual agencies within the justice system including volunteerism, private policing, quasi-court services, and contractual and cognate correctional agencies. Prerequisite: JUS 12000.

27095 Special Topics (2 or 3)
(Repeatable for a total of 6 hours) Intensive analysis of issues significant and current in the field which are not covered in regular courses. IP grade permissible. Prerequisite: JUS 12000.

27311 Victimology (3)
Patterns of victim-offender relationship and process of victimization. Role of victims in criminal process. Problems of adjustment to victimization and issues in victim compensation. Prerequisite: JUS 12000.

28001 Legal Research and Writing (3)
(Cross-listed with LEGT 18001) In-depth analysis of the legal research process and development of legal writing skills; opportunities to utilize research and writing skills are integrated into the course. Prerequisite: JUS 12000.

28003 Family Law and Procedure (3)
(Cross-listed with LEGT 18003) Designed to acquaint the student with family law substance and practice. Included: definitions, terminology, topical areas and the philosophy underlying family law practice. Prerequisite: JUS 18000.

28004 Principles and Practice of Litigation (3)
(Cross-listed with LEGT 28004) Introduction to the rules of civil procedure, statutes of limitation and discovery. Includes the role of the legal assistant in preparing for litigation. Prerequisite: JUS 18000.

28007 Estate and Probate Administration (3)
(Cross-listed with LEGT 28007) A study of legal principles applicable to wills, organization and jurisdiction of probate court, estate administration in probate and tax considerations in estate administration. Prerequisite: JUS 18000.

32000 Police and Community (3)
An examination of the rights of individuals, citizen involvement and the police as members of the community, and the development, implementation and evaluation of related programs. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including 12000 and 22300.

32400 Research Methods in Justice Studies (3)
Scientific approaches to the study of criminal justice. Survey of methods and designs used in criminal justice research; uses of research in criminal justice. Exercises included. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including 12000. This course may be used to satisfy the writing-intensive requirement with approval of major department.

32500 Crisis Intervention (3)
Crisis intervention situations in criminal justice are considered. The service role of criminal justice personnel, community resources and skill development are also considered. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000.

32200 Criminal Law (3)
Developmental backgrounds and principles of criminal law; structure, functions of criminal law; rules of criminal liability and procedural requisites in criminal proof. Case analysis included. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000.

33300 Development of Justice in America (3)
Course focuses on the evolution of the criminal justice process from its establishment in the United States to the present. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000.

33400 Crime and Justice in Popular Culture (3)
Crime and criminal justice as they are socially constructed and portrayed in popular culture including television news and entertainment, popular film and other media of popular culture. Critical analysis of relations between popular culture, media institutions, crime and justice. Role of popular culture media in shaping public opinions about crime and justice, and in turn the relevance of public opinion for understanding criminal justice politics and policy. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000.

34200 Criminal Procedures and Evidence (3)
This course focuses on the use of evidence and the legal procedures followed in the processing of criminal cases. Case analysis and writing assignments required. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000 or 18000.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
34311 Youth and the Justice System (3)  
Analysis of situations involving the legal rights of children and youths which demand intervention by justice institutions or service agencies. Prerequisite: JUS 12000.

36702 Criminology (3)  
Examines crime from the legal and social viewpoints; including extent and patterns of criminal behavior. Special emphasis on theoretical explanations of criminal behavior and crime rates. Prerequisite: 9 hours of justice studies (JUS) coursework, including JUS 12000.

36703 Juvenile Delinquency (3)  
Social and personal factors in juvenile delinquency; operation of juvenile justice system; prevention and control of delinquency. Prerequisite: 9 hours of justice studies (JUS) coursework, including JUS 12000 and 36702. This course may be used to satisfy the writing-intensive requirement with approval of major department.

36792 Internship in Paralegal (3-12)  
Work experience under direction of supervising faculty member in the following entities: private law firms, legal service/legal aid offices, law departments or corporations, and government agencies. IP grade permissible. Prerequisites: JUS 18000, 28001 and 28004.

37091 Seminar in Critical Issues in Justice (1-3)  
Intense analysis of issues significant and current in the justice field which are not covered in regular courses. IP grade permissible. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000.

37311 Minorities in Crime and Justice (3)  
Focus on the role of social and ethnic minorities as victims, offenders and participants in the justice process. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000. This course may be used to satisfy the diversity requirement.

37411 Women in Crime and Justice (3)  
Observation of women as a significant group in crime and their role in the development and operation of the criminal justice system. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000. This course may be used to satisfy the diversity requirement.

38002 Contract Law (3)  
This course is intended to provide students with an in-depth analysis of the law pertaining to contract formation, resolution of contract disputes and the impact of the uniform commercial code on traditional contract theory. Prerequisite: JUS 18000 and 28001.

38003 Administrative Law and Process (3)  
Substantive and procedural aspects of administrative law. Topics include the regulation of public utilities, transportation agencies, employment, food and drugs, and environment. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 18000.

38004 Legal Ethics and Professional Responsibility (3)  
This course will introduce students to the types of ethical dilemmas that they will face once in the work force; to the ethical rules developed by the American Bar Association; and to methods for researching the answers to ethical dilemmas. Prerequisites: JUS 18000 and 28001.

38005 Tort Law (3)  
Focuses on tort and personal injury law. Topics include intentional injuries to person and property, negligence, strict liability, product liability, defenses and immunity, and ethics. Prerequisites: JUS 18000 and 28001.

38006 Applied Legal Research and Litigation (3)  
Case analysis and preparation of argumentative memorandum. Includes writing of factual memorandum, file summaries and advocacy letters. Prerequisites: JUS 18000 and 28001. This course may be used to satisfy the writing-intensive requirement.

38007 Human Service Agencies and the Law (3)  
Designed to acquaint the student with the substance and procedure of law pertaining to human service agencies. Included: definitions, terminology, topical areas and legal ethics. Prerequisite: 9 credit hours of justice studies (JUS) coursework, including JUS 12000.

38008 Professional and Legal Writing (3)  
Case analysis and preparation of argumentative memorandum. Includes writing of factual memorandum, file summaries and advocacy letters. Prerequisites: JUS 18000 and 28001. This course may be used to satisfy the writing-intensive requirement.

44400 Justice Administration (3)  
Identification of administrative and management functions, leadership, management styles and supervision of personnel in justic organizations. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000 and 22300.

44411 Varieties of Police Work (3)  
Analysis of police practices and functions at the municipal, state and federal level, including private security. Examination of emerging trends in policing will be considered. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000 and 22300.

45093 Variable Title Workshop in Justice Studies (1-6)  
S/U grading. Prerequisite: special approval.

45096 Individual Investigation (1-3)  
(Repeated registration permissible when topic varies) Involves an individual research project of considerable depths in a subject area not covered by regular course offerings. Prior consent of supervising faculty member is required. IP grade permissible. Prerequisites: 12 credit hours of justice studies (JUS) coursework, including JUS 12000 and 22400 and 2.00 GPA in justice studies (JUS) and special approval.

46701 Crime, Justice and Substance Abuse (3)  
Examination of the relationship between drug and alcohol abuse and criminal behavior. Efforts to regulate, control, prevent and treat chemical abuse offenders are considered. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000.

46705 Community Corrections (3)  
This course is devoted to an examination of formal and informal approaches to correctional supervision and treatment through probation, parole and community residential treatment. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000 and 26701.

46707 Correctional Institutions (3)  
A thorough examination of the correctional institution, including the structure and organization, personnel, inmate social world and examination of the issues in contemporary correctional institutions. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000 and 26701.

46708 Treatment Methods (3)  
Various methods of treatment are applied to correctional fields. Focus is on specific techniques in community and institutional correctional settings. Direct observation utilized when possible. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000 and 26701.

46792 Internship (3-12)  
Work experience under direction of supervising faculty member in private, federal, state or local justice agency or law agency. SU grading; IP grade permissible. Prerequisites: 9 credit hours of justice studies (JUS) coursework, including JUS 12000 and 26701.

**Courses offered only at Regional Campuses.**

*Courses ineligible to be repeated for GPA recalculation.*
**Course Descriptions**

46798 Research in Justice Studies (3-12) (Repeatable for a total of 12 hours) Individual research under direct supervision of a faculty member to provide direct hands-on research experience working on faculty research projects. Prior consent of supervising faculty member is required. Only 6 hours of nontraditional coursework can count towards the major. IP grade permissible. Prerequisite: justice studies (JUS) major and junior standing or higher and JUS 32400 and minimum 3.20 GPA overall and special approval.

47095 Special Topics in Justice Studies (1-3) Intensive analysis of issues significant and current in the field which are not covered in regular courses. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000.

47111 Civil Law and Procedure (3) Substantive and procedural aspects of civil law with particular emphasis on civil actions arising out of breaches of criminal law. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000 or 18000.

47211 Court Functions (3) Analysis of the structure, functions and critical role of incumbents in the criminal court. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000.

47311 Comparative Justice Systems (3) A systematic comparison of the developmental backgrounds, structure and functioning of the major systems of justice in the modern world. Prerequisite: 12 credit hours of justice studies (JUS), including JUS 12000.

48200 Data Analysis in Justice Studies (3) This course exposes students to methods used in the analysis of quantitative and qualitative data in the field. Emphasis is placed on the development of analytical skills and appropriate use of statistical techniques. Computer applications and other hands-on methods emphasized. Prerequisite: 12 credit hours of justice studies (JUS) coursework, including JUS 12000 and 32400.

48300 Law of Corporations and Other Associations (3) This course will cover the formation, operation and dissolution of various kinds of business organizations. Subjects covered include: sole proprietorships, corporations, partnerships, the law of agency and employment agreements. Prerequisites: JUS 18000 and 28001.

48400 Intellectual Property Law (3) The purpose of this course is to acquaint students with the fundamentals of intellectual property (IP) law. Students will be introduced to the four primary fields within intellectual property: trademarks, copyrights, patents and trade secrets. At the conclusion of the course, students will fully understand how IP rights are acquired, registered (if necessary), protected, transferred and infringed. Moreover, students will be introduced to emerging IP topics and to international developments in the IP fields. Prerequisites: JUS 18000 and 28001.

49303 Variable Title Workshop in Music (1-4) Offered for specific professional needs. Emphasis on performance and pedagogical skills. S/U grading. Prerequisite: special approval.

**KENT BLOSSOM THEATRE (KBT)**

22192 Practicum I: Design/Technology (3) (Repeatable for a total of 12 hours) Practical experience in theatre production under faculty supervision. Available for all-division students only. Prerequisite: none.

22193 Practicum II: Design Tech (3) (Repeatable for a total of 12 hours) Advanced practical experience in theatre production under faculty supervision. Available for all-division students only. Prerequisite: none.

24104 Individual Study: Theatre (1-3) (Repeatable for a total of 12 hours) Selected research topics in theatre. Prerequisite: special approval.

24192 Theatre Production Internship (1-6) (Repeatable for a total of 12 hours) Intensive advanced training in practical aspects of production. Periodic seminars, laboratory sessions and performance in Porthouse Theatre Company. Prerequisites: junior standing and special approval.

24209 Practicum II: Performance (3) (Repeatable for a total of 12 hours) Advanced practical experience in theatre production under faculty supervision. Available for all-division students only. Prerequisite: none.

**LABOR STUDIES (LS)**

10501 Introduction to American Labor (3) Study of forces in American history which shaped labor movement, with attention to political, social, economic and legal factors. Prerequisite: none.

10505 Union Organization and Administration (3) Study of organization and administration of a local union, including structure of union, responsibilities of union officers, committee work, legal requirements, and internal and external communications. Prerequisite: none.

10510 Labor and the American Economy (3) Survey of the economic forces which affect the lives of Americans as producers, consumers and citizens. Evaluation of labor’s effects on American economy. Prerequisite: none.
20501 Collective Bargaining and Labor Contracts (3)
Basic course covering the relationships between the parties, structure, content and strategies involved in collective bargaining. Course includes current issues and trends in major agreements. Prerequisite: none.

20505 Labor and Current Issues (2)
Discussion and evaluation of current labor issues, including labor movement; equal employment opportunities; and the environmental consequences of industrial expansion, health care, consumerism and foreign competition. Prerequisite: none.

LATIN (LAT)
For placement and credit in foreign language courses see Arts and Sciences—Foreign Language Requirement—Placement and Credit.

16201 Elementary Latin I (4)
An introduction to the classical Latin language in the context of ancient Roman culture. Prerequisite: none.

16202 Elementary Latin II (4)
A continuation of the introduction to the classical Latin language in the context of ancient Roman culture. Prerequisite: LAT 16201.

26201 Intermediate Latin I: Readings (3)
Excerpts from Latin literature with emphasis on translation into English. Prerequisite: LAT 16202.

26202 Intermediate Latin II: Readings (3)
Excerpts from Latin literature with emphasis on both prose (e.g., Caesar, Cicero) and poetry (Vergil, Catullus). Prerequisite: LAT 26201.

36170 Cicero (3)
Readings in Cicero’s orations and philosophical works, stressing rhetorical techniques. Consideration of Cicero’s role in Roman history and his place in Latin literature. Prerequisite: LAT 26202.

36171 Vergil (3)
A study of the Latin text of Vergil’s Aeneid stressing the poetry of the language. Consideration of entire poem and its impact on Latin literature. Prerequisite: LAT 26202.

40393 Variable Title Workshop (1-6)
Workshops individually designed to provide instruction and training in Latin studies. S/U grading. Prerequisite: Departmental special approval.

46095 Selected Topics in Latin (3)
Topic announced in the Schedule of Classes. Prerequisite: LAT 36170 or 36171.

46096 Individual Investigation (1-3)
Investigation of problems in Latin literature or linguistics. IP grading permissible. Prerequisites: minimum 3 credit hours of coursework at the 40000 level and departmental special approval.

46211 Latin Prose Composition (3)
Analysis of prose models; writing of connected Latin prose with attention to the Latin idiom. Prerequisite: LAT 36170 or 36171.

46351 Latin Comedy (3)
Characteristics and history of Latin comedy; readings from Plautus and Terence. Prerequisite: LAT 36170 or 36171.

46352 Elegiac Poets (3)
Selections from Tibullus, Propertius and Ovid. Prerequisite: LAT 36170 or 36171.

46372 Lyric Poetry (3)
Readings from the poetry of Catullus and Horace, with considerations of the general genre of lyric; a comparison of style and content of the two poets. Prerequisite: LAT 36170 or 36171.

46373 Advanced Prose Authors (3)
Consideration of a major prose author such as Pliny the Younger, Livy, Tacitus or Suetonius; may be repeated when a different author is read. Prerequisite: LAT 36170 or 36171.

46374 Juvenal’s Satires and Martial’s Epigrams (3)
General consideration of Roman satire. Prerequisite: LAT 36170 or 36171.

46375 Lucretius (3)
De Rerum Natura. Prerequisite: LAT 36170 or 36171.

LEGAL ASSISTING TECHNOLOGY (LEGT)**

18000 Introduction to Paralegal Studies (3)
(Cross-listed with JUS 28001) An overview of the legal system and the role of a paralegal professional. Includes legal terminology, types of laws, research, litigation, interviewing and office management. Course offered at the East Liverpool Campus only. Prerequisite: none.

18001 Legal Research and Writing (3)
(Cross-listed with JUS 28001) In-depth analysis of the legal research process and development of legal writing skills; opportunities to utilize research and writing skills are integrated into the course. Course offered at the East Liverpool Campus only. Prerequisite: LEGT 18000.

18002 Corporate Law (3)
Introduction to corporation law and its application to client variations in practice. Course offered at the East Liverpool Campus only. Prerequisite: LEGT 18001.

18003 Family Law and Procedure (3)
(Cross-listed with JUS 28003) Designed to acquaint the student with family law substance and practice. Included: definitions, terminology, topical areas and the philosophy underlying family law practice. Prerequisite: LEGT 18000.

18004 Tort Claims for Paralegals (3)
Focus on tort claims management for paralegals. Topics include injuries to person and property, negligence, strict and products liability, defenses, processing insurance claims and settlements. Prerequisite: LEGT 18000.

18005 Employment Regulations (3)
Introduction to the employment environment and various regulations pertaining to the workplace. Wage and hour statutes, wrongful discharge statutes, ERISA, Title VII, COBRA. Course offered at the East Liverpool Campus only. Prerequisite: LEGT 18000.

21992 Internship (2)
Supervised field experience. This experience requires a minimum of 14 hours per week for unpaid work experiences or 20 hours per week for employment with pay. Course offered at the East Liverpool Campus only. Prerequisites: LEGT 28006 and special approval. Corequisite: LEGT 28008.

27091 Special Topics in Paralegal Studies (2-3)
(Cross-listed with JUS 27095) (Repeatable for a total of 6 hours) Intensive analysis of issues significant and current in the field which are not covered in regular courses. IP grade permissible. Prerequisite: LEGT 18000.

28004 Principles and Practice of Litigation (3)
(Cross-listed with JUS 28004) Introduction to the rules of civil procedure, statutes of limitation and discovery. Includes the role of the legal assistant in preparing for litigation. Prerequisite: LEGT 18000.

28005 Civil Litigation (3)
Role of paralegals in preparation for motions, trials and appeals. Specialized practices such as personal injury, medical malpractice, product and environmental liability. Prerequisite: LEGT 28004.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
**Course Descriptions**

**LIBRARY AND INFORMATION SCIENCE (LIS)**

10010 Information Fluency for College Success (3)
(Cross-listed with LMS 10010). Teaches information and technology skills critical to college success, enabling student to become information fluent—able to find and evaluate information in a variety of contexts and formats, using a variety of technologies, to achieve specific objectives in effective and socially responsible ways. Prerequisite: none.

40693 Variable Title Workshop in Library and Information Science (1-3)
Intensive examination of special topics of interest. Course may be repeated. S/U grading. Prerequisites: junior or senior standing and special approval.

41095 Selected Topics in Library Science (1-3)
Offered irregularly as resources and opportunities permit. Topics will be announced in Schedule of Classes. Prerequisite: special approval.

**LIBRARY AND MEDIA SERVICES (LMS)**

10010 Information Fluency for College Success (3)
(Cross-listed with LIS 10010). Teaches information and technology skills critical to college success, enabling student to become information fluent—able to find and evaluate information in a variety of contexts and formats, using a variety of technologies, to achieve specific objectives in effective and socially responsible ways. Prerequisite: none.

**MANAGEMENT AND INFORMATION SYSTEMS (MIS)**

24053 Introduction to Computer Applications (3)
Develop competency in the operation of contemporary software and hardware applications. To develop an appreciation for the contribution of computers, software and the Internet to society. Prerequisite: none.

24056 Fundamentals of Business Statistics (3)
Introduction to concepts in statistical methods and their applications to real-world problems. Examines both the theoretical and practical side of the different methods. Prerequisite: MATH 11010 or 11011 or 11012 or 12001 or 12002.

24060 Systems Analysis I (3)
Coverage of the system life cycle, structured process modeling and data modeling methodologies, logical system design and automated analysis tools. Prerequisites: MIS 24053 and special approval.

24070 Principles of Systems Development (3)
Provides an overview of the information systems profession, a rigorous introduction to programming logic and language syntax and a framework for the IS curriculum. Prerequisites: MIS 24053 and special approval.

24080 Computer Programming for Business (3)
Introduces a programming language currently used in business and industry for data processing, decision making and other information systems applications. Prerequisite: MIS 24070.

24093 Variable Title Workshop in Management and Information Systems (1-6)
Special workshop in management and information systems. Credits depend on scope of project. S/U grading. Prerequisite: special approval.

24163 Principles of Management (3)
Introductory course in management and organizational design. The leading contributions in the area are reviewed and practical implications are developed. Prerequisite: Minimum sophomore standing.

34031 Systems Simulation (3)
Concepts and methods of simulating systems to facilitate managerial decision making. Students design computerized simulation models using simulation language to analyze complex problems. Prerequisites: minimum 2.50 cumulative GPA; and MIS 24056 or MATH 10041 or BMRT 24004; and MIS 24080.

34032 Data and File Technology (3)
An introduction to file architecture and database management systems. The application of these technologies is detailed. Prerequisite: MIS 24060 and 24070.

34033 Computer Programming for Business II (3)
Continuation of Computer Programming for Business I. Emphasis on problem solving, developing systems, structured programming, programmatic style conventions and programming in teams. Prerequisites: MIS 24060 and 24070.

34036 Large Systems Technology (3)
An introduction to the use of large computer systems; experience with job control language, utilities, teleprocessing monitors, execution languages and job streams. Prerequisites: MIS 24060 and 24070.

34045 Small Systems Technology (3)
An examination of the role of small computer systems within an organization’s information systems environment. Prerequisites: MIS 24060 and 24070.

34053 Data Integration (3)
This course mixes concepts of data and information with hands-on applications with popular business software and the migration of the information to the Internet as well as Intranets. Prerequisites: MIS 24060 and 24070; not open to computer information systems (CIS) majors.

34054 Using Information Systems for Solving Business Problems (3)
This course is a continuation of MIS 24053 and provides students with further study of use of information systems in solving business problems. Prerequisite: minimum 2.50 cumulative GPA; and MIS 24053 or COMT 11000; not open to computer information systems (CIS) majors.

34055 Computer Decision Modeling (3)
Introduces students to the scientific decision-making tools of operations research and management science, and also to the use of spreadsheet modeling for problem formulation and solution without the need for mathematics. The concepts of modeling and better decision making are stressed along with illustrations from the various functional areas of business. Prerequisites: minimum 2.50 cumulative GPA; and MIS 24053 or COMT 11000; and MIS 24056 or MATH 10041 or BMRT 21004; not open to computer information systems (CIS) majors.

34058 Operations Research I (3)
Matrix algebra, linear programming, transportation problems and network flow problems. Theory and solution methods of each problem developed in conjunction with applications and foundations. Prerequisite: MATH 11010 or 11012 or 12001 or 12002.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
34059 Service Operations Management (3)
Provides students with the concepts and tools necessary to effectively manage service operations. Also prepares them for management opportunities in service firms that represent the fastest-growing sector of the economy. The service management is presented from an integrated viewpoint with a focus on customer satisfaction. Course materials are organized around four modules: (1) understanding services, (2) designing the service enterprise, (3) managing service operations and (4) presenting world-class service. Prerequisite: minimum 2.50 cumulative GPA and MIS 24060.

34060 Operations Management (3)
A survey course in production and operations management that covers the managerial concepts and the quantitative tools used in the design, planning, operation and control of production systems. Prerequisites: minimum 2.50 cumulative GPA; and MIS 24063 or COMT 11000; and MIS 24056 or MATH 10041 or BMRT 21004.

34064 Manufacturing Resource Planning (3)
Introduces students to the basic tools that operations managers use to inform their decisions on a daily basis. Hands-on coverage of manufacturing resource planning tools, including forecasting and master production schedules, bill of materials structuring, order entry and purchasing, capacity requirements planning, routing, costing, customer service, shipping, invoicing and using an enterprise resource planning (ERP) software. Prerequisite: minimum 2.50 cumulative GPA and MIS 34060.

34065 Quality Assurance (3)
Introduction to importance of quality assurance and tools used to accomplish better quality in goods and services. Topics: TQM, Six Sigma, quality philosophies, sampling plans and statistical process control, ISO, quality competition and awards. Prerequisite: minimum 2.50 cumulative GPA and MIS 34060.

34185 Individual and Group Behavior in Organizations (3)
Determinants of individual and group behavior within work organizations. Topics covered include motivation, job design, learning, decision making, leadership and group behavior as they relate to performance and other outcomes in work organizations. Prerequisite: MIS 24163 or BMRT 11009.

34280 Social Responsibility in the Workplace (3)
Using a case-based approach to learning, this course provides information on what constitutes appropriate business behavior by examining the major business and nonbusiness factors that influence business policies and practices. Prerequisite: minimum 2.50 cumulative GPA; and MIS 24163 or BMRT 11009.

44042 Telecommunications and Networking (3)
Presentation of current and emerging telecommunications services and networking technologies with emphasis on their strengths, limitations and business applications. Prerequisite: MIS 24070.

44042 Data Base Management Systems (3)
The design, implementation and management of database management systems within organizations are studied from both theoretical and applied perspectives. Prerequisites: MIS 24060 and 24070.

44044 Systems Analysis II (3)
Physical system implementation: mapping logical data models and process models to physical data bases and system design; system coding, testing, installation, conversion, training and automated tools. Prerequisites: MIS 24060 and 24070.

44045 Information Systems Management (3)
Management of information systems resources and the IS function. Topics include IS planning for global, national and interorganizational commerce, IS architecture development and strategic alignment, information technology portfolio and risk management, project management, management of technical employees and management of technology customer issues. Prerequisites: MIS 24060 and 24070; and one of the following computer information systems (CIS) major requirement courses: MIS 44042 or 44043 or 44048 and computer information systems (CIS) major.

44048 Software Integration (3)
The design and implementation of information systems. Traditional and alternative development strategies are investigated from a theoretical and applied perspective. Group project to implement information system with software packages. Prerequisite: minimum 2.50 cumulative GPA and MIS 24060 and 24070 and computer information systems (CIS) major. This course may be used to satisfy the writing-intensive requirement with approval of major department.

44049 Network Management (3)
Practical aspects of installing and managing PC networks within business organizations. Emphasis on commonly used network operating systems, LAN and WAN technologies, internetworking and media. Prerequisite: minimum 2.50 cumulative GPA and MIS 44042.

44056 Statistical Models for Business Applications (3)
The application of linear statistical models such as regression analysis of variance, analysis of covariance, and design of experiments for managerial decision problems. Prerequisite: minimum 2.50 cumulative GPA.

44061 Operations Management and Control (3)
Introduces the student to the key functions of an operations planning and control system, which provides information for the efficient flow of materials, the effective utilization of people and equipment and the proper coordination of internal activities with suppliers and customers. Prerequisite: minimum 2.50 cumulative GPA and MIS 34061.

44062 Supply Chain Management (3)
Students learn the basic analytical tools needed to coordinate business operations across the value chain. Course involves hands-on coverage of supply chain management with emphasis on supplier partnering and development, customer relations management, strategic sourcing and pricing, e-business, measuring supply chain performance, mass customization, planning supply and demand and coordination in the supply chain. Prerequisite: minimum 2.50 cumulative GPA and MIS 34061.

44065 Strategies in Production and Operations Management (3)
Senior project in industrial management. Applies concepts from all prior coursework to the solution of real and simulated operating problems. Prerequisite: minimum 2.50 cumulative GPA and MIS 44064. This course may be used to satisfy the writing-intensive requirement with approval of major department.

44066 Strategies in World Class Operations (3)
Introduce the student to Lean Production methodology, often referred to as Japanese management. Prerequisite: senior standing.

44091 Seminar in Human Resource Management (3)
In-depth readings, discussion, projects and presentations in a specialized area of human resource management. Prerequisites: minimum 2.75 cumulative GPA; and MIS 24053 or BMRT 11009; and MIS 34180 or BMRT 21006; and special approval.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
Course Descriptions

44093 Variable Title Workshop in Management and Information Systems (1-6)
S/U grading. Prerequisite: minimum 2.50 cumulative GPA.

44095 Special Topics (3)
Special topics course that will be offered on a yearly basis. Topics can span the full range of HR functions. This course also can have a practicum format. Prerequisites: minimum 2.50 cumulative GPA; and MIS 34180 or BMRT 21006; and special approval.

44096 Individual Investigation in Management (3)
Prerequisite: special approval.

44150 Total Quality Management (3)
Considers the application of sound management principles and theories needed for successful implementation of quality processes and systems. The course will be based on class discussion and cases. Prerequisites: minimum 2.50 cumulative GPA; and MIS 24163 or BMRT 11009; and business management (BMGT) major. This course may be used to satisfy the writing-intensive requirement with approval of major department.

44183 Developing and Training Human Resources in Organizations (3)
The focus of this course is quality training design, based upon theory and empirical research. Implications for practice and current challenges in employee training and development are also highlighted. Prerequisites: minimum 2.75 cumulative GPA; and MIS 34180 or BMRT 21006; and special approval.

44191 Senior Research Seminar in Management (3)
Combination of individual or group research and class discussion for superior students. Investigations in administration and organization conducted in accordance with scholarly interests of participants. Prerequisite: special approval.

44192 Internship in Management (3)
A supervised field experience requiring a minimum of 120 hours of work at a cooperating organization. Requires regular contact with instructor and preparation of an internship report connecting academic coursework to on-the-job experiences. Prerequisites: special approval.

44195 Advanced Topics in Human Resource Management (3)
Advanced topics course that will be offered on a yearly basis. Topics can span the full range of HR functions. This course also can have a practicum format. Prerequisites: minimum 2.75 cumulative GPA; and MIS 34180 or BMRT 21006; and special approval.

44285 Integrated Business Policy and Strategy (3)
Integration of the functional areas of business in the formulation and implementation of policy. Projects and case analyses of business situations provide students with the opportunity to apply analytical and creative problem-solving skills. Prerequisites: enrollment in the College of Business Administration and minimum 2.50 cumulative GPA; and MIS 21009 or BMRT 11009.

44292 Internship in Information Systems (3)
Preparation of a research report concurrent with on-the-job experience in the information systems department of a cooperating business or industrial organization. Prerequisites: minimum 2.50 cumulative GPA and MIS 24060 and MIS 24070 and computer information (CIS) major and special approval.

**MANUFACTURING ENGINEERING TECHNOLOGY (MFGT)**

12010 Safety in the Workplace (2)
Topics include Ohio general industry safety requirements. Discussion will include all workshops and factories, metal casting, steel mills, and rubber and plastic industries. Prerequisite: none.

13001 Computer Numerical Control Programming (3)

14001 Geometric Dimensioning and Tolerancing (3)
Theory and application of geometric dimensioning and tolerancing (GD&T) including interpretation of GD&T symbols on blueprints and inspection of parts with coordinate measuring machine. Prerequisites: MERT 12000 and EERT 22003.

21001 Standard Design Practice for Manufacturing Technology (3)
Analysis of fundamental machine design components. Discussion will include keys, fasteners, pulleys, gears, chains, bearings, power transmission equipment and associated topics. Prerequisites: EERT 22002 and MERT 12001 and 12005.

22014 Advanced Industrial Electronics (3)
Advanced course in PLC program design and implementation. Emphasis on Boolean logic. Project definition and completion. Prerequisite: EERT 22013

**MARINE RETAIL OPERATIONS TECHNOLOGY (MROT)**

11000 The Marine Dealership (3)
A review of recreational boating in the United States: new technology affecting the industry; and industry growth forecasts nationally and geographically. Prerequisite: none.

11005 Principles of Navigation and Seamanship (3)
Review of equipment and techniques fundamental to navigation, piloting and safety. Includes the study of tides and streams, navigational equipment and safe handling of recreational boats. Prerequisite: none.

21015 Internal Operations of the Marina and Dealership (2)
Review of current government regulations, risk management and operation management of the service department of marinas and marine dealership boatyards. Prerequisite: special approval.

21050 Merchandising Boats and Service (3)
Basic concepts of merchandising including inventory, assortment planning, pricing, showroom and service facilities; location factors, design, layout and space utilization, advertising and other promotion functions. Prerequisites: MROTi 11000 and BMRT 21050.

**MANAGERIAL MARKETING (MMTG)**

35011 Marketing Tools (3)
Topics include the analytical, financial, statistical, communications, and decision-making skills and development of the technical competencies needed to succeed as a marketing professional in small-sized firms. Prerequisites: MIS 24053 and MKTG 25010 and managerial marketing (MMTG) majors. This course may be used to satisfy the writing-intensive requirement with approval of major department.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
35021 Research for Marketing Decisions (3)
Focusing on the effective collection, organization, evaluation and use of data pertaining to marketing decision making. Data analysis, interpretation and presentation methods suited for a small-sized firm are emphasized. Prerequisites: MMTG 35011.

35023 Customer Analysis (3)
Addresses the methods marketers use to appraise the value of customer groups. Segmentation, target marketing, selected theories of consumer and buyer behavior, and database organization and analysis methods are covered. Prerequisites: MMTG 35011.

35024 Hands-on Technology Enhancement Laboratory (1)
Laboratory designed to expand student’s abilities with spreadsheets, statistical packages and presentation software. Prerequisites: minimum 2.50 cumulative GPA; and MIS 24053 or COMT 1100; and MKTG 25010 or BMRT 21050; and managerial marketing (MMTG) major.

35026 Decision-Making Skill Enhancement Laboratory (1)
Laboratory designed to expand students’ data interpretation, decision-making and creative problem-solving skills. Prerequisites: MMTG 35011.

35030 Service, Retail and Web-Based Marketing (3)
Survey of the fields of service, retail and web-based marketing. Processes for building and managing customer relationships and loyalty are addressed. Prerequisites: MKTG 35030 and marketing (MKTG) major.

35035 Consumer Behavior (3)
This course covers consumer decision-making processes and psychological, sociological, cultural and economic factors influencing them. Analysis of marketing mix strategies and policies in a behavioral context. Prerequisite: MKTG 25010.

35050 Marketing Research (3)
This course focuses on the collection and analysis of new marketing data, both for exploratory and for decision-making purposes. Students work individually and in teams, developing and communicating responses to managerial questions. Prerequisites: MKTG 25010 and MIS 24056 and marketing (MKTG) major. Pre/corequisite: MKTG 35030.

35055 Internet Marketing (3)
This course will give students an understanding of the ways in which the Internet and the World Wide Web can be integrated into the marketing mix. In addition, tools of marketing which are available via the Internet will be explored. Prerequisite: MKTG 25010 or 35035 or BMRT 21050.

35060 International Marketing (3)
Examination of international marketing in terms of global markets and trade. Emphasizes differences among markets caused by geography, politics, economics, culture, commercial policy and trade practices. Prerequisite: MKTG 25010 or 35035 or BMRT 21050.

35061 International Marketing (3)
This course covers relationship building, customer analysis and retention, market segmentation and strategy, purchasing and materials management, new product development and pricing. Prerequisite: MKTG 25010 or 35035 or BMRT 21050.

40091 Marketing Seminar (3)
Current topics in marketing. Certain sections of this variable topic seminar may require instructor special approval or have further prerequisites. See current Schedule of Classes. Prerequisite: MKTG 25010 or 35035 or BMRT 21050.

44026 Personal Selling and Sales Management (3)
This course covers communication and successful selling, building relationships, ethics, the buying process, prospecting, planning and making sales calls and sales management. Prerequisite: MKTG 25010 or 35035 or BMRT 21050.
MKTG 45202 Marketing Internship (3)
Preparation of research report concurrent with on-the-job experience with cooperating business or other organization. Prerequisite: minimum 2.50 cumulative GPA; and MKTG 25010 or 35035 or BMRT 21050; and special approval.

MATH

**Course ineligible to be repeated for GPA recalculation.**

**Courses offered only at Regional Campuses.**

10031 Fundamental Mathematics I (1)
Equations and inequalities in one variable, linear equations, rate of change and slope, graphing in the Cartesian coordinate system, introduction to functions. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: none. Students should have appropriate placement scores, or have minimum C (2.0) grade in MATH 10004 or 10031 before taking this class. Special fee: $15 flat fee—subject to change.

10032 Fundamental Mathematics II (1)
Equations and inequalities in one variable, linear equations, rate of change and slope, graphing in the Cartesian coordinate system, introduction to functions. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: none. Students should have appropriate placement scores, or have minimum C (2.0) grade in MATH 10004 or 10031 before taking this class. Special fee: $15 flat fee—subject to change.

10033 Fundamental Mathematics III (1)
Systems of equations, algebraic expressions, exponents and radicals, functions and their graphs. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: none. Students should have appropriate placement scores, or have minimum C (2.0) grade in MATH 10032 before taking this class. Special fee: $15 flat fee—subject to change.

10034 Fundamental Mathematics IV (1)
Polynomial operations and factoring, quadratic equations and functions, zeros of functions, rational expressions and functions. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: none. Students should have appropriate placement scores, or have minimum C (2.0) grade in MATH 10034 before taking this class. Special fee: $15 flat fee—subject to change.

10035 Fundamental Mathematics V (1)
Polynomial functions, medium-level factoring techniques; solving equations and inequalities; problem solving. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: none. Students should have appropriate placement scores, or have minimum C (2.0) grade in MATH 10034 before taking this class.

10036 Fundamental Mathematics VI (1)
Advanced factoring techniques; basics of exponential and logarithmic functions. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: none. Students should have appropriate placement scores, or have minimum C (2.0) grade in MATH 10005 or 10035 before taking this class.

10041 Elementary Probability and Statistics (3)
Descriptive statistics, probability concepts, binomial and normal distributions. Sampling, estimation, hypothesis testing. Analysis of paired data, linear models and correlation. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: none. Students should have appropriate placement scores, or have minimum C (2.0) grade in MATH 10005 or 10034 before taking this class.

11008 Explorations in Modern Mathematics (3)
Topics from various branches of mathematics are chosen to introduce students to the wide varieties of ways in which mathematics affects everyday life. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: minimum C (2.0) grade in MATH 10005 or 10034. This course may be used to satisfy the Liberal Education Requirements (LER).

11009 Modeling Algebra (4)
Study of algebra arising in the context of real-world applications, including linear, polynomial, exponential and logarithmic models. Intended for students not planning to take calculus. No credit for MATH 11010 or 11011. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: minimum C (2.0) grade in MATH 10005 or 10034. This course may be used to satisfy the Liberal Education Requirements (LER).

11010 Algebra for Calculus (3)
Study of elementary functions and graphs, including polynomial, exponential and logarithmic functions; complex numbers; binomial theorem. No credit for MATH 11011 or 12001. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: minimum C (2.0) grade in MATH 10036. This course may be used to satisfy the Liberal Education Requirements (LER).

11011 College Algebra (4)**
Level of difficulty between that of MATH 10005 and 12001. Includes factoring, equations, inequalities, functions, graphs, exponential and logarithmic functions. No credit for MATH 11010 or 12001. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: minimum C (2.0) grade in MATH 10005 or 10035. This course may be used to satisfy the Liberal Education Requirements (LER).
11012  Intuitive Calculus (3)
Designed to give an overview of differential and integral calculus to business and life science majors. Does not include trigonometric functions. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: minimum C (2.0) grade in MATH 11010 or 11011 or 12001. This course may be used to satisfy the Liberal Education Requirements (LER).

11022  Trigonometry (2)
Solution of triangles, trigonometric equations and identities. No credit for MATH 12001. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: minimum C (2.0) grade in MATH 11011; or may be taken concurrently with MATH 11010 and 10036 both with a grade of C (2.0) or better.

12001  Algebra and Trigonometry (4)**
Includes topics covered in MATH 11011 and 11022. No credit for MATH 11010 or 11011 or 11022. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: Compass Algebra score of 55 or better with either an SAT Math score of at least 480 or an ACT Math score of at least 20; or Compass Algebra score of 36 or better with either an SAT Math score of at least 620 or an ACT Math score of at least 27. This course may be used to satisfy the Liberal Education Requirements (LER).

12002  Analytic Geometry and Calculus I (6)
Concepts of limit, continuity and derivative, and the indefinite and definite integral for functions of one real variable. Maximization, related rates, fundamental theorem of calculus. No credit for MATH 12011 or 12012. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: a grade of C (2.0) or better in MATH 11022 and in one of MATH 11010 or 11011; or a grade of C (2.0) or better in MATH 12001. This course may be used to satisfy the Liberal Education Requirements (LER).

12003  Analytic Geometry and Calculus II (5)
Continued study of techniques and applications of integration; trigonometric, logarithmic and exponential functions; polar coordinates; vectors; parametric equations; sequences and series. Prerequisite: MATH 12002 or 12012.

12011  Calculus with Precalculus I (3)
Introduction to differential calculus with a review of algebra and trigonometry. Includes exponents, factoring, functions, graphs, tangent lines, limits, continuity, derivatives and related rates. No credit for MATH 12002. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: Compass Algebra score of 55 or better with either an SAT Math score of at least 480 or an ACT Math score of at least 20; or Compass Algebra score of 36 or better with either an SAT Math score of at least 620 or an ACT Math score of at least 27. This course may be used to satisfy the Liberal Education Requirements (LER).

12012  Calculus with Precalculus II (3)
Development of integral calculus and continued study of differential calculus. Includes curve sketching, optimization, fundamental theorem of calculus, areas between curves, exponential and logarithmic functions. No credit for MATH 12002. Prerequisite: MATH 12011. This course may be used to satisfy the Liberal Education Requirements (LER).

12021  Calculus for Life Sciences (4)
Differential and integral calculus using examples and problems in life sciences. Prerequisite: integrated life sciences (ILS) major.

12022  Probability and Statistics for Life Sciences (3)
Probability and statistics with applications in medical and biological sciences. Prerequisite: MATH 12021 or 12003.

14001  Basic Mathematical Concepts I (4)
Development of the real number system and its sub-systems, open sentences, number systems, modular arithmetic and some number theory concepts. Students who have not taken a previous mathematics course at Kent State must see an academic advisor in the Student Advising Center for placement. Prerequisite: grade of C (2.0) or better in MATH 10005 or 10034. This course may be used to satisfy the Liberal Education Requirements (LER).

14002  Basic Mathematical Concepts II (4)
Basic concepts of probability, statistics and geometry. Prerequisite: MATH 14001. This course may be used to satisfy the Liberal Education Requirements (LER).

19001  Technical Mathematics I (4)**
Introduction to geometry, algebra and trigonometry. For students in the engineering technologies. Prerequisite: special approval.

19002  Technical Mathematics II (4)**
Continuation of MATH 19001. Emphasizes advanced topics in algebra and trigonometry, analytic geometry, derivatives and integrals. Prerequisite: MATH 19001.

19099  Field Experience in Mathematics
Instruction (1)
Learning through tutoring. A supervised laboratory experience in providing explanations of mathematical concepts. May be repeated in a different area. Prerequisite: special approval.

20005  Special Topics in Mathematics (1-5)
(Repeated registration permissible) Various special courses will be announced in the Schedule of Classes under this course number with different section numbers. Prerequisite: special approval.

21001  Linear Algebra with Applications (3)
Systems of linear equations and the associated matrix operations, linear transformations, vector spaces, bases, eigenvectors. Prerequisite: MATH 11012 or 12002.

21003  Introduction to Systems Analysis and Data Communications (3)**
(Cross-listed with COMT 21003) Background in the topic of systems analysis, design, development and implementation including an overview of teleprocessing. Prerequisite: MIS 24080.

21092  Computer Practicum (2)**
(Cross-listed with COMT 21092) Supervised work experience in a computer installation. Prerequisite: none.

22005  Analytic Geometry and Calculus III (3)
Study of functions of several variables, including partial derivatives and multiple integrals. Prerequisite: MATH 12003.

23022  Discrete Structures for Computer Science (3)
(Cross-listed with CS 23022) Discrete structures for computer scientists with a focus on: mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking, applications and modeling. Specific topics include logic, sets, functions, relations, algorithms, proof techniques, counting, graphs, trees, Boolean algebra, grammars and languages. No credit for MATH 31011. Prerequisites: CS 10511 and a grade of C (2.0) or better in MATH 11010 or 11011 and 11022; or a Compass Algebra score of 55 or better and either SAT Math score of 540 or better or ACT Math score 23 or better.
20011 Basic Probability and Statistics (3)  
Analysis and representation of data. Controlled experiments and observations. Measurement errors. Correlation and regression. Sampling. Probability models and tests of models. Inference. Prerequisite: a grade of C (2.0) or better in MATH 11010 or 11011 or 12001.

30055 Mathematical Theory of Interest (3)  
A calculus-based introduction to the mathematics of finance. Limited to deterministic analysis of interest rates, annuities, bonds and immunization. Emphasizes the mathematical theory of the subject matter. Prerequisite: MATH 12003.

31011 Discrete Mathematics (3)  
Discrete mathematical techniques and structures including finite set theory, graph theory, propositional calculus, combinatorics and discrete probability. Formal methodology and proof techniques. Prerequisites: MATH 12002. Pre/corequisite: MATH 21001.

31045 Formal Logic (3)  
(Cross-listed with CS 31045 and PHIL 31045) Study of first-order predicate calculus with identity and function symbols. Prerequisite: none.

32044 Introduction to Ordinary Differential Equations (3)  
An introduction to ordinary differential equations and applications. Topics include solution methods, series solutions and singular points. Laplace transforms and linear systems. Applications include population dynamics, forced oscillations and resonance. Prerequisites: MATH 21001 and 22005.

32051 Mathematical Methods in the Physical Sciences I (4)  
Mathematics background beyond Calculus I and II for upper-division courses in the physical sciences. Topics include complex numbers and arithmetic, linear algebra, partial differentiation and multiple integrals. Prerequisite: MATH 12003.

32052 Mathematical Methods in the Physical Sciences II (4)  
Additional mathematics background for upper-division courses in the physical sciences. Topics include vector analysis, Fourier series and transforms, ordinary differential equations and partial differential equations. Prerequisite: MATH 32051; or 21001 and 22005.

34001 Fundamental Concepts of Algebra (3)  
Professionalized course in algebra for prospective secondary teachers. Postulational development of number system of algebra; other systems, related topics, applications. Prerequisite: MATH 12002.

34002 Fundamental Concepts of Geometry (3)  
Professionalized course in geometry for secondary school teachers. Origin and development of the geometry of Euclid with modern refinements, topics, approaches. Other geometries, applications. Prerequisite: MATH 12002.

40011 Introduction to Probability Theory and Applications (3)  
Permutations and combinations, discrete and continuous distributions, random variables, conditional probabilities, Bayes's formula, mathematical expectation, law of large numbers, normal approximations, basic limit theorems. Prerequisite: MATH 12003.

40012 Introduction to Statistical Concepts (3)  
Sample spaces, continuous distributions, sampling distributions, point and interval estimation, hypothesis testing, types of error, level and power of tests, sequential and nonparametric methods. Prerequisite: MATH 40011.

40022 Linear Models and Statistical Analysis (3)  
Regression model, multivariate normal distribution, point and interval estimates, Gauss-Markov Theorem, correlation and regression, tests of hypotheses, applications. Prerequisites: MATH 21001 and 40012.

40031 Basic Nonparametric Statistics (3)  
Rank tests for different kinds of hypothesis, large sample theory, efficiency comparisons, tests of hypotheses, applications. Prerequisites: MATH 21001 and 40012.

40032 Statistical Methods for Experiments (3)  
Comparison of two groups, I- and F-statistics, ANOVA, one-way and multivary layouts, randomization, blocking. Linear regression, correlation and analysis of covariance (ANCOVA). Repeated measures analysis of variance. Prerequisites: MATH 30011.

40042 Sampling Theory (3)  
This introductory course provides the methodology for the design and analysis of sampling and surveying studies. Simple random, stratified, cluster, PPS and two-stage sampling techniques. Linear, ratio and regression estimators. Prerequisite: MATH 30011.

40051 Topics in Probability Theory and Stochastic Processes (3)  
Topics from conditional expectations, Markov chains, Markov processes, Brownian motion and Martingales and their applications to stochastic calculus. Prerequisite: MATH 40011.

40055 Actuarial Mathematics II (4)  
Benefit premiums, benefit reserves and their analysis; decrement models, joint survivorship, risk models. Prerequisite: MATH 40052.

40056 Actuarial Mathematics II (4)  
Benefit premiums, benefit reserves and their analysis; decrement models, joint survivorship, risk models. Prerequisite: MATH 40052.

40091 Seminar in Actuarial Mathematics (2)  
Seminar course designed to prepare students for the Society of Actuaries examination on actuarial mathematics. Prerequisite: MATH 40056.

40093 Variable Title Workshop in Mathematics (1-6)  
Studies special topics in mathematics. Not acceptable for credit toward a major or minor in mathematics without approval of student's advisor. S/U grading. Prerequisite: special approval.

41001 Introduction to Modern Algebra I (3)  
Basic properties of groups, subgroups, factor groups. Basic properties of rings, integral domains, and homomorphisms. Prerequisites: MATH 21001 and 22005. This course may be used to satisfy the writing-intensive requirement with approval of major department.

41002 Introduction to Modern Algebra II (3)  
A continuation of MATH 41001, emphasizing properties of rings, their ideals, polynomial ring extensions, fields, finite degree extensions, roots of polynomials, constructibility. Prerequisite: MATH 41001. This course may be used to satisfy the writing-intensive requirement with approval of major department.

41012 Finite Mathematics (3)  
(Cross-listed with CS 41012) A continuation of Discrete Math, emphasizing combinatorial techniques, graph applications in algorithms, finite algebra, number theory and probability. Covers useful math for CS majors. Prerequisite: CS 31011 or MATH 31011.

41021 Theory of Matrices (3)  
A rigorous study of the topics introduced in matrix algebra. Topics included are vector space preliminaries, canonical forms of matrices, diagonalizability criteria. Prerequisites: MATH 21001 and 22005.

41045 Metalevel (3)  
(Cross-listed with CS 41045 and PHIL 41045) May be counted toward B.A. or B.S. in mathematics major. See PHIL 41045 for description. Prerequisite: PHIL 31045.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
Course Descriptions

**Course eligible to be repeated for GPA recalculation.**

**Courses offered only at Regional Campuses.**

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**MATH 21001 and 22005.**

Introduction to Analysis I (3)
Topics include basic structure of the real numbers, Cauchy sequences, convergence, completeness of the real numbers, continuity, differentiation and Riemann integration. Prerequisites: MATH 21001 and 22005. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

Introduction to Analysis II (3)
Topics include further development of integration theory, infinite series, uniform convergence, several variable calculus and metric spaces. Prerequisite: MATH 42001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

Mathematical Optimization (3)
Analytic and numerical techniques for location of extreme points of functions and calculus of variations. Both constrained and unconstrained problems are considered. Prerequisites: MATH 21001 and 22005.

Graph Theory and Combinatorics (3)
Fundamentals and applications of combinatorial mathematics. Topics include traversability, colorability, networks, inclusion and exclusion, matching and designs. Prerequisites: MATH 12003 and 21001.

Numbers and Games (2)
The study of partisan and impartial combinatorial games; games as numbers; Grundy-Sprague theory. Prerequisite: MATH 21001.

Mathematical Models and Dynamical Systems (3)
Formulation and analysis of mathematical models for a variety of phenomena. Mathematical methods from optimization, dynamical systems and probability are developed and applied. Modern software tools are utilized. Prerequisite: MATH 32044.

Advanced Calculus (3)
The calculus and applications of scalar and vector functions of several variables. Vector differential and integral calculus. Applications to field theories, electricity and magnetism, and fluid flow. Prerequisites: MATH 21001 and 22005.

Introduction to Partial Differential Equations (3)

Introduction to Complex Variables (3)
Algebra of complex numbers, analytic functions, mappings, Cauchy integral theory, residue theory and applications. Prerequisite: MATH 22005.

Seminar: Modeling Projects (3)
Individual and small-group projects concerned with the formulation and analysis of mathematical models in a variety of areas. Written and oral reports are required. IP grade permissible. Prerequisite: MATH 42031. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

Introduction to Numerical Computing I (3)
(Cross-listed with CS 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 and 21001 and CS 23021. Special fee: $10 flat fee—subject to change.

Introduction to Numerical Computing II (3)
(Cross-listed with CS 42202) A continuation of MATH 42201. Topics include interpolation, numerical differentiation and integration, and numerical solution of ordinary differential equations. Prerequisites: MATH 32044 and 42201. Special fee: $10 flat fee—subject to change.

Differential Geometry (3)
Analytic and metric differential geometry of curves and surfaces. Prerequisite: MATH 22005.

Euclidean Geometry (3)
Geometry of Euclid extended to advanced topics of the triangle, quadrilaterals and circles; cross-ratio, groups, constructions, geometric generalizations; inversion. Prerequisite: MATH 21001 or special approval of instructor.

Linear Geometry (3)
Using transformations as a tool to study geometry and to differentiate between different kinds of geometry. Linear algebra methods applied to geometry. Prerequisite: MATH 21001.

Elementary Topology (3)
Metric spaces, introduction to topological spaces, separation axioms. Prerequisite: MATH 22005.

Mathematical Logic and Set Theory (3)
Axiomatic set theory, relations, development of real numbers, cardinal numbers, axiom of choice. Prerequisite: special approval.

Theory of Numbers (3)
Divisibility properties of the integers, prime numbers, congruences, quadratic reciprocity, Diophantine equations, number theoretic functions, simple continued fractions, rational approximations. Prerequisite: MATH 12003.

History of Mathematics (3)
Survey from Babylonian and Egyptian mathematics to 20th century mathematics with emphasis on the development of algebra, geometry, calculus, number theory. Prerequisite: 3 credit hours of mathematics beyond 22005.

Selected Topics in Mathematics and Its Applications (1-4)
(Repeated registration permissible) Various special courses will be announced in the Schedule of Classes under this course number with different section numbers. Prerequisite: special approval.

Individual Study (1-4)
Prerequisite: special approval of instructor.

Research (1-15)
Prerequisite: special approval.

MECHANICAL ENGINEERING AND RELATED TECHNOLOGIES (MERT)**

Engineering Drawing (3)
Engineering drawing principles and techniques: lettering, instrument use, orthographic projection, sketching, sections, auxiliary views, dimensioning and conventional practices. Electrical/electronics drawing including schematic and PC layout. Prerequisite: none.

Computer-Aided Drafting (4)
Introduction to and use of computer-aided drafting techniques to draw working drawings: detail and assembly drawings of machine parts. Applications of descriptive geometry to determine true sizes, intersections and developments. Prerequisite: MERT 12000.

Manufacturing Processes (3)
Introduces students to the various manufacturing processes such as extrusion, molding, forging, casting, stamping, piercing, joining and finishing. Investigates the various ways parts are made from the vast array of material available. Prerequisite: none.

Properties of Materials (3)
Covers the chemical and physical properties of engineering materials such as metals (ferrous and non-ferrous), polymers, ceramics and composites. Students learn the mechanical and physical properties of materials, and the effects that manufacturing processes have on the material’s properties. Prerequisite: none.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
21096 Individual Investigation in Mechanical Engineering Technology (1-4)  
Independent, in-depth research of a mechanical engineering technology topic supervised and coordinated by an engineering technology faculty member. Prerequisite: special approval.

22002 Statics and Strength of Materials (5)  

22004 Mechanics and Machine Design (5)  
Mechanical design procedures including static and dynamic stresses, stress concentrations, design considerations. Design of keys, pins, fasteners, welds, power transmission devices and related components. Prerequisite: MERT 22002.

22006 General Mechanical Laboratory (3)  
Laboratory testing to determine material properties: tension, compression, shear, torsion, impact and hardness. Materials testing methods including engineering instrumentation. Prerequisite: sophomore standing.

22009 Robotics and Flexible Automation (3)  
A hands-on course in automated manufacturing systems, including workcell design with interfacing to robotics and related economic considerations, selection and feasibility. Prerequisite: EERT 22014.

22011 Dynamics (3)  
Motion of particles and rigid bodies; kinematics, kinetics, Newton’s Laws; work, energy, power and the impulse-momentum principle. Prerequisite: sophomore standing.

22012 Fluid Power (3)  
Fluid properties, kinematics of fluid flow, momentum, viscosity, conservation of energy in fluid flow, industrial hydraulics and gas laws. Prerequisite: none.

22020 Applied Vector Analysis (1)  
A course in vector analysis, differential forms, matrices and applied tensor analysis as applied to engineering and technology problems. Prerequisite: MATH 19002.

22021 Applied Finite Element Analysis (1)  
Introduction to finite element analysis methods as applied to engineering and technology problems. Prerequisite: MATH 19002. Corequisite: MERT 22002.

22029 Structure Analysis (3)  
Drafting techniques for preparing detailed working drawings for steel, concrete, timber and masonry structures. Application of design to structures and machine components. Elementary stress analysis. Prerequisite: MERT 12000.

22095 Special Topics (1-3)  
(Repeated registration permitted) Special topics in mechanical engineering technology. Prerequisite: special approval.

MIDDLE CHILDHOOD EDUCATION (MCED)  

30000 Curriculum and Organization in Middle Childhood (2)  
History, philosophy, curricula and organization of schools serving early adolescents ages 8-14. Emphasis on development of programs and curricula that are culturally and developmentally responsive to the needs of early adolescents. Prerequisite: HDFS 24012.

30001 Teaching Mathematics in Middle Childhood I (3)  
Examine issues and trends in mathematics and mathematics education. Theories of the teaching and learning of mathematics will be addressed within the context of problem solving, communications, reasoning and connections with other disciplines. Prerequisites: EDPF 2925S; and MATH 14001 and 14002; or MATH 12001 and 12002. Admission to advanced study. Special fee: $10 flat fee—subject to change.

30002 Integrated Social Studies and Science in Middle Childhood (3)  
Introductory methods course integrating social studies and science. Emphasis on principles of teaching and learning as applied to teaching to social issues and problems appropriate for middle childhood students. Prerequisite: admission to advanced study. Special fee: $15 flat fee—subject to change.

30003 Teaching Social Studies in Middle Childhood II (3)  
Individual and group work develop effective techniques of teaching science concepts to 8-14-year-olds. Attention given to methods, equipment, safety and planning. This course includes 40 field/practicum hours. Prerequisite: MCED 30001 and admission to advanced study. Special fee: $15 flat fee—subject to change.

30004 Teaching Science in the Middle Childhood II (3)  
Advanced methods course. Examines the purpose of citizenship education and understanding the role of history and the social sciences. Applying the principles of powerful teaching. Includes a major field experience at the student teaching site. Prerequisite: MCED 30002 and admission to advanced study.

30005 Effective Use of Phonics in Reading (3)  
The influence of theoretical perspectives on word identification instruction, an examination of the role of phonics in reading and writing, strategies for effective phonics instruction and assessment. Prerequisite: advanced study.
40006 Reading and Writing in Middle Childhood (6)
Understanding of literacy learning in the middle childhood (ages 8-14) with emphasis on the development of reading and writing processes, strategies for text learning, literacy in electronic environments, authentic assessment and teaching children who struggle as readers. Prerequisite: advanced study. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

40007 Teaching Reading With Literature in Middle Childhood (2)
The study of the teaching of reading with literature to middle childhood students within an integrated language arts approach in a comprehensive literature program. Prerequisite: MCED 40006 and admission to advanced study.

40092 Field Experience III: Middle Childhood (1)
Students will be placed in their student teaching sites(s). Field experiences will focus on individual, small group and large group instruction in inclusive classrooms. S/U grading. Corequisite: MCED 40000.

41000 Curriculum and Organization in Middle Childhood (3)
History, philosophy, curricula and organization of schools serving early adolescents in grades 4-9. Emphasis on development of programs and curricula and early adolescent development. 15 credit hours of field experience in grades 6-9. Prerequisites: admission to advanced study and middle childhood education(MCED) major and MCED 31000.

42357 Student Teaching Middle Childhood/Gifted Education (5)
All-day student teaching experience in the middle grade schools for eight weeks. S/U grading; IP grade permissible. Prerequisites:MCED 40007 and 41000 and admission to advanced study.

42358 Student Teaching in Middle Childhood (9)
Full-time teaching for 12 weeks in two selected concentrations (mathematics, science, language arts, social studies) and reading in grades 4-5/or grades 6-7-8. S/U grading; IP grade permissible. Prerequisite: MCED 40007 and MCED 41000 and admission to advanced study.

49255 Inquiry into Professional Practice: Middle Childhood (3)
A seminar linked to student teaching with an emphasis on action research as professional development; completion of professional portfolios; professional ethics; and legal, medical and ethical issues in teaching. Prerequisites: MCED 40007 and 41000. Corequisite: MCED 42358.

**Courses offered only at Regional Campuses.

**Course ineligible to be repeated for GPA recalculation.

I MILITARY SCIENCE (MSCI)

10180 Introduction to Leadership I (1)
Introduces the student to the concept of leadership in the military and in democratic society in general. Examines leadership characteristics, principles and styles. Students must participate in outdoor character-building exercises. Corequisite: MSCI 10191 (ROTC only).

10185 Introduction to Leadership II (1)
Introduces the student to techniques and methods that leaders must employ. Examines time management, stress management, staff/group dynamics, problem-solving process and leadership climate. Corequisite: MSCI 10191 (ROTC only).

10191 Leadership Seminar I (1)
Instructional program preparing individuals to undertake the broad range of tasks associated with the dimensions of leadership. Stresses decision-making roles of leaders in planning and executing organizational programs. S/U graded. Corequisites: MSCI 10180 and 10185.

20180 Survey of American Military History (1)
Traces North American military history, theory, doctrine, strategy and tactics from the pre-Revolutionary period to the present. Prerequisite: none.

20181 Leadership Assessment I (2)
Interdisciplinary study of organizational leadership and group dynamics through assessment of 16 behavioral dimensions. Provides practical application and assessment of leadership skills in formal organizations. Corequisite: MSCI 20191 (ROTC only).

20183 Leadership Assessment II (2)
Interdisciplinary study of organizational leadership and group dynamics through assessment of 16 behavioral dimensions. Provides practical application and assessment of leadership skills in formal organizations. Corequisite: MSCI 20191 (ROTC only).

20191 Leadership Seminar II (1)
Instructional program preparing individuals to undertake the broad range of tasks associated with the dimensions of leadership. Stresses decision-making roles of leaders in planning and executing organizational programs. Corequisites: MSCI 20180 or 20183.

20196 Individual Research (1 or 2)
Individual research projects in leadership management technique and MODE Program. Used only for selected personnel for entry into the advanced program. Prerequisites: sophomore standing and special approval.

30160 Leadership Development (2)
Develops managerial skills with emphasis on group dynamics, leadership theory and practical leadership experiences. Integrates communication skills, decision making and group motivation. Prerequisite: special approval. Corequisite: MSCI 30191.

30170 Organizational Leadership (2)
Application of management fundamentals, decision theory and leadership principles to organizations. Emphasis in coordinating, directing and controlling organizations. Prerequisite: special approval. Corequisite: MSCI 30191.

30183 Leadership Practicum (1–4)
Practical application of leadership in the military team. Prerequisite: special approval.

30191 Leadership Seminar III (1)
Instructional program preparing individuals to undertake the broad range of tasks associated with the dimensions of leadership. Stresses decision-making roles of leaders in planning and executing organizational programs. Corequisite: MSCI 30160 or 30170.

40160 Military Management and Ethics (2)
Professional ethics and responsibilities of military leaders. Development of interpersonal and managerial communicative skills. Prerequisite: special approval. Corequisite: MSCI 40191.

40170 The Professional Military Officer, Management and Law (2)
Studies in professional officer development, the military justice system and the management of personnel resources. Prerequisite: special approval. Corequisite: MSCI 40191.

40191 Leadership Seminar IV (1)
Instructional program preparing individuals to undertake the broad range of tasks associated with the dimensions of leadership. Stresses decision-making roles of leaders in planning and executing organizational programs. Prerequisite: special approval. Corequisite: MSCI 40160 or 40170.

40196 Individual Investigation (1–3)
Individual research projects, reports and readings. Prerequisites: special approval and advanced program standing.

I MODERN AND CLASSICAL LANGUAGE STUDIES (MCLS)

10001 Introduction to Structural Concepts for Language Students (2)
Entry-level analysis of concepts of structure and form employed in language instruction. Designed for students who anticipate difficulty in basic language courses. Taught in English. Should be taken with a beginning language course. Prerequisite: none.

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21417  Multiculturalism in Today’s Germany (3)
This course examines how issues of diversity shaped German culture and traces the country’s transformation into a postnational, multicultural society. Taught in English; knowledge of German not necessary. Prerequisite: none. This course may be used to satisfy the diversity requirement.

22217  Diversity in Today’s Russia (3)
This course examines how issues of diversity have shaped Russian culture and traces Russia’s attempts at transition to a postnational, multicultural society. Taught in English; knowledge of Russian not necessary. Prerequisite: none. This course may be used to satisfy the diversity requirement.

22317  The Francophone Experience (3)
An introduction to various aspects of contemporary society and culture in countries where French is spoken. Taught in English; knowledge of French not necessary. Prerequisite: none. This course may be used to satisfy the diversity requirement.

28403  Hispanics in the United States (3)
An introduction to various aspects of Hispanic culture in the U.S. that examines how issues of diversity have shaped today’s multicultural United States. Taught in English; knowledge of Spanish not necessary. Prerequisite: none.

28404  The Latin American Experience (3)
An introduction to various aspects of contemporary Latin American societies and cultures. Taught in English; no knowledge of a foreign language is necessary. Prerequisite: none. This course may be used to satisfy the diversity requirement.

28405  The Spanish Experience (3)
An introduction to various aspects of contemporary Spanish culture that examines how issues of diversity have shaped today’s multicultural, multilingual society. Taught in English; knowledge of Spanish not necessary. Prerequisite: none. This course may be used to satisfy the diversity requirement.

28230  Approaches to Translation (3)
An introduction to foreign language translation. Course introduces concepts, resources, principles and techniques of text analysis, and translation strategies applicable to various types of texts. Prerequisite: junior standing.

30576  Novels of Pierre Loti (3)
A study of the gay novels of Pierre Loti, including the emergence of the idea of “the homosexual man” in modern Western thought and the ways in which this development is reflected in the course of Loti’s writing. Prerequisite: ENGL 21011 or HONR 10297. This course may be used to satisfy the diversity requirement.

30660  Orientation to Second Language Pedagogy (3)
Theories of human development and learning, second language acquisition research and second language methodology form the basis for classroom practices. Peer-teaching and 30 hours of field experience required. Prerequisites: special approval.

37143  The African-Brazilian Experience in Culture and Literature (3)
(Cross-listed with HIST 31143 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. Taught in English. Prerequisite: junior standing. This course may be used to satisfy the diversity requirement.

39597  Intradepartmental Colloquium (1-4)
Permits students to explore areas of special interest not usually covered in standard departmental courses (e.g., movies and literature, women in literature). Prerequisite: none.

40093  Variable Title Workshop in Modern and Classical Language Studies (1-6)
Workshops individually designed to provide instruction and training in specific areas of modern and classical language studies. S/U grading. Prerequisite: departmental special approval.

40095  Selected Topics (1-3)
Topic to be announced in the Schedule of Classes. Repeated registration permissible when content varies. Prerequisite: senior standing.

40420  Foreign Languages and Culture Studies (3)
Students of international business, foreign languages and translation will explore the complex relationship between a foreign language and the cultural system of which it is a part. Course focuses on German, French and Spanish cultures. Prerequisite: none.

40525  Inquiry into Professional Practice (3)
Foreign language teaching as a profession and the teacher as disciplined investigator. The final seminar of four, it is conducted during the student-teaching semester with emphasis on collaborative and individual classroom problem solving. Prerequisite: special approval.

40654  Computers in Second Language Teaching (3)
Designed for future 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: MCLS 30660.

40657  Student Teaching of a Second Language (3-9)
Supervised practicum in the teaching of a second language, grades K-12. S/U grading; IP grade permissible. Prerequisite: special approval.

40660  Methods of Teaching Foreign Language (03)
Theoretical bases, approaches, methods, materials and techniques of foreign language instruction at the elementary and secondary levels. Peer-teaching and 30 hours of field experience required. Prerequisites: MCLS 30660 and special approval.

MUSIC (MUS)

11111  Music Rudiments (2)
Introduction to the pitch and rhythmic aspects of music. Emphasis on aural/oral skills and music notation. No credit toward graduation for music majors or minors. Prerequisite: Music Theory Placement Test, score of 01.

11121  Theory (3)
Basic elements of music—harmonic, melodic, rhythmic—studied through analysis, composition, keyboard and ear training. Diagramic materials emphasized. Prerequisite: Music Theory Placement Test, score of 02.

11122  Theory (3)
Continuation of basic elements of music—harmonic, melodic, rhythmic—studied through analysis, composition, keyboard, singing and ear training. Diagramic materials emphasized. Prerequisite: MUS 11121 with a grade of C- (1.7) or better.

12211  Music of Western Cultures (2)
Provides a basic understanding of the elements of music embedded in a survey of types of music cultivated in Western societies including folk, popular and classical. Prerequisite: music (MUS) or music education (MUED) major.

12212  Music of Nonwestern Cultures (2)
A survey of the musics of traditional Europe, Latin America, Asia, Africa and Oceania. Attention is given to listening skills, cultural context, organology, function and technical matters of style. May not earn credit for both MUS 12212 and 22212. Prerequisite: MUS 12211 and music (MUS) or music education (MUED) major.

18611  Singer’s Diction I (1)
Foundational training and performance practice in phonetics and singing diction for the English, American, Ecclesiastical Latin and Italian vocal repertoire. Prerequisite: music (MUS) major.

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*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
18612 Singer’s Diction II (1)
Foundational training and performance practice in phonetics and singing diction for the vocal repertoire of French, German and selected other languages. Prerequisite: music (MUS) major and MUS 18611 with a grade of C- (.7) or better.

20295 Special Topics in Music (1-3)
(Repeated registration permissible) Academic study in areas not offered adequately in the music curriculum. Topic areas are of special interest to the faculty member. Prerequisite: music (MUS) major.

21121 Music Theory to 1750 (3)
Study of Western musical style from Gregorian chant through the Baroque period. Emphasis on aural, compositional, written and keyboard approaches as appropriate to medieval, Renaissance and Baroque music. Prerequisite: MUS 11222 with a grade of C- (.7) or better.

21122 Music Theory From 1750 to 1900 (3)
Study of Western musical style from the early classical to the late Romantic period. Emphasis on aural, compositional, written and keyboard approaches as appropriate to classical and Romantic music. Prerequisites: MUS 21121 with a grade of C- (.7) or better.

22111 The Understanding of Music (2)
A listening approach for the understanding of Western art music, folk and jazz. Particular attention is paid to musical styles, forms and compositional techniques as related to music history. Not open to music majors. Prerequisite: nonmusic majors. This course may be used to satisfy the Liberal Education Requirements (LER).

22121 Music As a World Phenomenon (3)
An introduction to music as a world phenomenon. Study of selected art, folk and popular musics from world cultures through live performances, tapes, films, video tapes and readings. No credit for both MUS 22121 and 12122. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

23111 Music Fundamentals (3)
The study of pitch, rhythm, notation, structure and interpretation of music through performance on voice, melody instruments and accompanying instruments. Prerequisite: none.

23241 Music Teaching As a Profession (2)
Basic teaching strategies and techniques; an overview of music teaching as a career; diversity, integration, curriculum technology, classroom management, legal issues, personal skills and portfolio. Forty-five field/clinical hours required. Prerequisites: music (MUS) or music education (MUED) major and sophomore standing.

25011 University Chorus (1) **
(Repeated registration permissible) Choral ensemble which studies and performs sacred and secular music for mixed voices. Activities include performance on and off campus. Prerequisite: audition.

25131 Opera: Singer-Actor Techniques (1)
(Repeated registration permissible) Training in methods and skills necessary to the art of the singer-actor. Opera performed and prepared via study, observation and rehearsal. Prerequisite: audition.

25225 University Band (1)
(Repeated registration permissible) Study and performance of music literature for wind band appropriate for music majors and nonmajors. Prerequisite: none.

25231 Jazz Ensemble (1)
(Repeated registration permissible) Study and performance of music literature for jazz ensemble appropriate for music majors and nonmajors. Prerequisite: none.

25311 Chamber Music (1)
(Repeated registration permissible) The study and performance of music for small ensembles. Prerequisite: special approval.

31111 Advanced Sight Singing (2)
Advanced sight singing and ear training. Sight singing in five clefs emphasizing vocal and instrumental works from various periods including contemporary. Prerequisite: MUS 21122.

31121 Western Music Since 1900 (2)
Class meets three hours per week. The study of Western art music since 1900 from historical and theoretical viewpoints. Emphasis on aural, listening, music composition and written skills as well as intellectual understanding. Prerequisites: MUS 21122 and 32212 both with a grade of C- (.7) or better.

32111 Composition (2)
(Repeated registration permissible) Original composition for instrumental and vocal solos and small ensembles using shorter musical forms. Prerequisite: music (MUS) or music education (MUED) major.

32211 Music History to 1750 (3)
A survey of Western music history from the early Christian chants through the Baroque style. Prerequisite: MUS 12211 and 21121; and MUS 21122 with a grade of C- (.7) or better; and junior standing.

32212 Music History 1750 to 1900 (3)
A survey of Western music history of the 18th and 19th centuries. Prerequisite: MUS 12211 and 21121 and 21122; and MUS 32211 with a grade of C- (.7) or better; and junior standing. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

33111 Teaching Music in the Elementary Classroom (3)
Study of music and related arts for the classroom. Development of music skills and strategies for teaching music to children in elementary schools. Three field/clinical hours are required. Prerequisites: MUS 23111, EDPF 28911, 28915, 28992 and CI 20000.

33211 Elementary and Secondary General Music (3)
Kodaly, Orff, Dalcroz and recent methods in general music. Music reading in elementary and secondary classes; cultural diversity and pedagogy for the special learner. Sixty field/clinical hours required. Taken concurrently with MUS 33212. Prerequisite: music (MUS) major.

33212 Teaching Skills in Music Education: General/Instrumental (1)
Clinical experience in the teaching of general and instrumental music in the schools. Fifteen field/clinical hours required. Taken concurrently with MUS 33211 or 43231. Prerequisites: music (MUS) major and junior standing.

33223 Teaching Skills in Music Education: Choral/Orchestral (1)
Clinical experience in the teaching of choral and orchestral music in the schools. Fifteen field/clinical hours required. Prerequisites: music (MUS) or music education (MUED) major and junior standing. Corequisite: MUS 33231 or 43211.

33231 Elementary and Secondary Choral Music (3)
Choral methods, rehearsal techniques, conducting skills and literature used in elementary and secondary schools. Sixty field/clinical hours required. Taken concurrently with MUS 33213. Prerequisites: MUS 22411 and 34111.

34111 Elementary Conducting (2)
Introduction to and study of conducting: beat patterns, baton techniques, score reading, analysis and interpretive elements. Six field/clinical hours are required. Prerequisite: MUS 21121.

40295 Special Topics in Music (1-3)
(Repeatable for a total of 12 hours) Academic study in areas not offered adequately in the music curriculum. Topic areas are of special interest to the faculty member. Prerequisite: music (MUS) major.
40296 Independent Study: Music (1-3)
Individual investigation in music topics not offered as either regular coursework or beyond the scope of existing music major courses. Repeatable for credit. Prerequisites: music major and special approval.

41111 Practicum in Music Theory (2)
Ear training, sight singing and analysis in preparation for graduate-level music theory coursework. Prerequisite: special approval.

41131 Keyboard Harmony (3)
Theoretical skills demonstrated at the keyboard: realization of figured bass, score reading, modulation and improvisation. Prerequisite: MUS 21122.

41141 Sixteenth-Century Counterpoint (3)
Two-, three-, and four-part vocal counterpoint in 16th-century style. Prerequisite: MUS 21122.

41151 Eighteenth-Century Counterpoint (3)
Technique of writing counterpoint in 18th-century style, especially that of J.S. Bach. Prerequisite: MUS 21122.

41161 Advanced Musical Analysis (3)
A study of 20th-century approaches to tonal and nontonal musical analysis. Emphasis on familiarity with styles, nomenclature and appropriate graphic techniques. Prerequisite: MUS 31121.

41181 Acoustics and Technology in Music (2)
An introduction to acoustics and psychoacoustics in direct relationship to music, and an introduction to the uses of technology in music composition, performance, notation, theory and pedagogy. Prerequisite: music (MUS) or music education (MUED) major.

41199 Senior Project: Music Theory (3)
Preparation and presentation of a senior thesis in the student’s area of expertise. Prerequisite: special approval.

41211 Composition (2-4)
(Repeated registration permissible) Study of the materials and techniques of musical composition culminating in original works based upon observable principles of unity and variety. Prerequisite: composition (COMP) or music (MUS) or music education (MUED) major.

41220 Introduction to Electronic Music (3)
General introductory survey of electronic music, including its technology, history and aesthetics. Use of electronic media in art, music, jazz and popular music. Prerequisite: none.

41231 Techniques of Electronic Music (3)
Techniques of the composition of electronic music, including tape techniques and synthesizer techniques. Study oriented toward the facilities of the Kent State University Electronic Music Studio. Prerequisite: music (MUS) major.

41299 Senior Project: Music Composition (3)
The final composition experience prior to graduation. A recital of individually composed works must be presented. Prerequisite: MUS 41211.

41321 Ranges (3)
Ranges, tonal possibilities, technical limitations and transpositions for all orchestral instruments. Scoring techniques and analysis of representative instrumental ensemble repertoire. Prerequisite: MUS 21122.

41341 Jazz Improvisation (2)
The development of the art of jazz improvisation through performance and analysis. Prerequisite: special approval.

41342 Jazz Arranging (2)
Arranging for the large and small jazz ensemble. Prerequisite: special approval.

41351 American Music (3)
Historical survey of music in America from New England psalmody to present-day compositional trends. Prerequisite: none.

41352 Folk and Traditional Music of Western Continents (3)
Study of selected music cultures of Eastern and Western Europe, and South, Central and North America. Prerequisite: none.

42222 Chamber Music Literature (3)
Historical and stylistic survey of chamber music literature. Prerequisite: MUS 21122.

42241 Piano Literature (3)
Survey of keyboard and piano literature from the 16th century to the present; study of related forms and styles. Emphasis on performing, listening and analysis. Prerequisite: special approval.

42251 Song Literature (3)
A study of vocal literature from the 18th century to the present. Emphasis upon the style, interpretation and presentation of solo materials for all voice classifications. Prerequisite: MUS 32212.

42261 Opera Literature (3)
The historical development of opera from the 17th century to the present. Detailed analysis of representative works. Prerequisite: MUS 32212.

42271 Choral Literature (3)
Study of choral literature from all historical periods and styles. Prerequisite: special approval.

42357 Student Teaching and Seminar (9)
The course provides a 15-week student teaching experience. Off-campus arrangements are handled by the School of Music. S/U grading; IP grade permissible. Prerequisite: music education (MUED) major and special approval. Corequisite: MUS 49525.

42311 Secondary Instrumental Methods (3)
Secondary instrumental instruction; program organization, planning, repair, methods, choosing music, materials and teaching techniques. Sixty field/clinical hours required. Prerequisites: MUS 23241 and special approval. Corequisite: MUS 33213.

42331 Elementary and Middle School Instrumental Method (3)
Elementary and middle school instrumental instruction, program organization, rehearsals/teaching techniques, lesson plans, literature, budget/scheduling, recruiting. Sixty field/clinical hours required. Prerequisites: MUS 23241 and special approval.

42321 Organizing Band Techniques and Literature (2)
Organization, administration and techniques of marching bands in the schools. Topics covered include musical styles, literature and show design. Ten field/clinical hours are required. Prerequisite: special approval.

42221 Symphonic Literature (3)
Historical and stylistic survey of music for large instrumental ensemble. Prerequisite: MUS 21122.

**Courses offered only at Regional Campuses.

*Course ineligible to be repeated for GPA recalculation.

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43242 Jazz Ensemble Techniques and Literature (2)
Study of the curriculum for the jazz ensemble, including organizational and administrative procedures. Emphasis on music interpretation, jazz styles and rehearsal techniques taught through laboratory experience. Prerequisite: special approval.

42343 Vocal Jazz and Musical Theatre in the Schools (3)
History, vocal technique, style characteristics and repertoire necessary for teaching vocal jazz and African-American spirituals. Repertoire, organization and publicity for school productions of American musical theatre. Prerequisites: music (MUS) major and junior standing.

42444 Student Teaching Preparation (2)
Individualized instruction to prepare music education students to student teach. Emphasis is placed on removing deficiencies or enhancing strengths prior to student teaching. Prerequisite: special approval.

41111 Choral Conducting and Arranging (3)
Continued development of conducting technique, score reading analysis, styles, interpretation, rehearsal procedure, language pronunciation, and arranging for voices and instruments. Six field/clinical hours are required. Prerequisite: MUS 34111.

41211 Instrumental Conducting and Arranging (3)
Continued development of conducting technique, score reading, analysis, styles, interpretation, rehearsal procedure and arranging for instrumental organizations. Twelve field/clinical hours are required. Prerequisite: MUS 34111.

45111 University Choir (1)
(Repeated registration permissible) Study and performance of choral music from Renaissance through contemporary styles, large and small forms with appropriate accompaniment. Prerequisite: special approval.

45121 Kent Chorus (1)
(Repeated registration permissible) Study and performance of choral music from Renaissance through contemporary styles, large and small forms with appropriate accompaniment. Prerequisite: special approval.

45131 Opera: Singer-Actor Techniques (2)
(Repeated registration permissible) Training in methods and skills necessary to the art of the singer-actor. Opera performed and prepared via study, observation and rehearsal. Prerequisite: audition.

45141 Kent State University Chorale (1)
(Repeated registration permissible) Study and performance of literature for vocal chamber ensemble from Medieval through contemporary styles with appropriate accompaniment sung in the original language. Prerequisite: special approval.

45142 Men’s Chorus (1)
A chorus of male voices. Emphasis on music literacy, vocal production, instruction, study and performance of music written for male voices. All Western music periods are represented. Experience with mixed-voice choirs also occurs. Prerequisite: special approval.

45143 Women’s Chorus (1)
A chorus of women’s voices. Emphasis on music literacy, vocal production, instruction, study and performance of music written for women’s voices. All Western music periods are represented. Experience with mixed-voice choirs also occurs. Prerequisite: special approval.

45151 Kent State University Gospel Choir (1)
(Repeated registration permitted) Study and performance of choral music in the gospel tradition, including works by contemporary artists. One weekly rehearsal and a minimum of one concert per semester. Off-campus concerts are possible. Prerequisite: none.

45122 Orchestra (1)
(Repeated registration permissible) A select group of instrumentalists for the purpose of studying and performing music written specifically for chamber orchestra including works of the 17th, 18th and 20th centuries. Prerequisite: special approval.

45221 Concert Band (1)
(Repeated registration permissible) Study and performance of music literature for wind band. Prerequisite: special approval.

45222 Marching Band (1)
(Repeated registration permissible) Study and performance of literature and maneuvers for marching band. Prerequisite: special approval.

45223 Wind Ensemble (1)
(Repeated registration permissible) A select concert ensemble that performs the finest in wind instrumental literature with emphasis on major original works. Prerequisite: special approval.

45224 Basketball Band (1)
(Repeated registration permissible) Study and performance of music for the basketball band. Prerequisite: special approval.

45225 University Band (1)
(Repeated registration permissible) Study and performance of music literature for wind band appropriate for nonmusic majors, and for music education majors performing on secondary instruments. Prerequisite: none.

45231 Jazz Ensemble (1)
(Repeated registration permissible) Study and performance of music literature in the jazz idiom. Prerequisite: special approval.

45241 Trombone Ensemble (1)
(Repeated registration permissible) A thorough study of trombone performance in various-sized ensembles. Emphasis on original literature from over four centuries. Prerequisite: special approval.

45251 Percussion Ensemble (1)
(Repeated registration permissible) A comprehensive study of percussion performance in various-sized ensembles. Use of keyboard percussion instruments along with drums and accessories. Study of percussion ensemble literature. Prerequisite: special approval.

45261 Bassoon Ensemble (1)
(Repeated registration permissible) Study and performance of music for multiple bassoons; emphasis upon refined ensemble playing, interpretation, leadership skills and arranging techniques. Prerequisite: special approval.

45271 New Music Ensemble (1)
(Repeated registration permissible) Study and performance of music of 20th-century chamber music with an emphasis on works by contemporary composers. Prerequisite: special approval.

45281 Flute Ensemble (1)
(Repeated registration permitted) Study and performance of music for multiple flutes; emphasis upon all aspects of ensemble playing and style considerations will be addressed in both chamber and conducted formats. Prerequisite: special approval/audition.

45311 Chamber Music (1 or 2)
(Repeated registration permitted) The study and performance of music for small ensembles. Prerequisite: special approval.

45321 Accompanying (1 or 2)
(Repeated registration permitted) Accompanying instrumental and vocal soloists; piano ensemble works. Credit counted toward ensemble requirements. One-hour credit for two hours of assigned accompanying weekly. Prerequisite: special approval.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>47014</td>
<td>Folk Guitar for the Music Educator (1)</td>
<td>Development of basic folk guitar performance skills for music education majors. Prerequisites: music education (MUED) major and MUS 23111. Special fee: $35—subject to change.</td>
</tr>
<tr>
<td>47811</td>
<td>Instrument Class for the Choral/General Music Educator (1)</td>
<td>Class instruction in the basic playing skills of band and orchestral instruments intended to provide familiarity with the common school instruments for the choral/general music major. Prerequisite: music (MUS) major. Special fee: $20 flat fee—subject to change.</td>
</tr>
<tr>
<td>48111</td>
<td>Eurythmics (1)</td>
<td>Applied study of rhythm through kinesthetic, intellectual and emotional involvement. Movement experiences to strengthen concentration and communication between ear, brain and muscles that execute rhythm. Prerequisite: music (MUS) major.</td>
</tr>
<tr>
<td>48112</td>
<td>Eurythmics (1)</td>
<td>See MUS 48111. Prerequisite: MUS 48111.</td>
</tr>
<tr>
<td>48211</td>
<td>Introduction to Piano Pedagogy (2)</td>
<td>Observation and teaching of individual and class lessons, children and adults. Study and performance of preparatory materials, elementary through intermediate piano literature. Prerequisite: music (MUS) or music education (MUED) major and junior standing.</td>
</tr>
<tr>
<td>48221</td>
<td>Elements of Accompanying I (2)</td>
<td>Techniques of accompanying; selected overview of art song literature including Italian, German, French and English songs; development of playing-at-sight skills. Prerequisite: special approval.</td>
</tr>
<tr>
<td>48222</td>
<td>Elements of Accompanying II (2)</td>
<td>Continuation of accompanying techniques including opera accompanying, orchestral reductions and selected overview of literature for solo instrument and piano; continuation of playing-at-sight skills. Prerequisite: MUS 48221.</td>
</tr>
<tr>
<td>48241</td>
<td>Voice Pedagogy (2)</td>
<td>Survey of techniques, practices and materials of teaching voice. Prerequisite: special approval.</td>
</tr>
<tr>
<td>48251</td>
<td>Pedagogy of Music Theory (2)</td>
<td>The principles and techniques of teaching music theory. Prerequisite: MUS 21122.</td>
</tr>
<tr>
<td>48257</td>
<td>Pedagogy—Instrumental (2)</td>
<td>Principles and techniques of instruction. Literature survey. Analysis of instrumental problems and performance practice. Offered as needed for strings, woodwinds, brass, percussion, organ or guitar. Prerequisite: special approval.</td>
</tr>
<tr>
<td>48393</td>
<td>Variable Title Workshop in Music (1-4)</td>
<td>Offered for specific professional needs. Emphasis on performance and pedagogical skills. S/U grading. Prerequisite: special approval.</td>
</tr>
<tr>
<td>48512</td>
<td>Improvisation (1)</td>
<td>The development of musical improvisation skills not tied to any particular music style. Students will perform on their own applied instrument(s). Prerequisite: MUS 21121.</td>
</tr>
<tr>
<td>48525</td>
<td>Inquiry into Professional Practice (3)</td>
<td>Instruction in band, choral, general and orchestral music methods for music education majors. Focus on teacher leadership experiences and action research projects. Sixty-two field/clinical hours required. Prerequisites: music education (MUED) major and admission to student teaching.</td>
</tr>
<tr>
<td>48598</td>
<td>Music Research (2-3)</td>
<td>(Repeated registration permissible) Research or individual investigation for undergraduate students. IP grade permissible. Prerequisite: special approval.</td>
</tr>
<tr>
<td>49525</td>
<td>Inquiry into Professional Practice (3)</td>
<td>Instruction in band, choral, general and orchestral music methods for music education majors. Focus on teacher leadership experiences and action research projects. Sixty-two field/clinical hours required. Prerequisites: music education (MUED) major and admission to student teaching.</td>
</tr>
</tbody>
</table>
| 36111       | Piano Class for Nonmusic Students (2 each) | Development of basic skills required in playing piano, including familiarity with the keyboard and music notation. Prerequisite: MUS 17011—none; 17012—MUS 17011 or audition. Special fee: $45 flat fee—subject to change. *Course ineligible to be repeated for GPA recalculation. **Courses offered only at Regional Campuses.
17111 Piano Class (1)
Preparatory piano. Credit not acceptable on music major sequences. Piano literature and functional elements of sight-reading, transcription, harmonization and improvisation. Prerequisite: special approval. Special fee: $35 flat fee—subject to change.

17112 Piano Class (1)
Preparatory piano. Credit not acceptable on music major sequences. Piano literature and functional elements of sight-reading, transcription, harmonization and improvisation. Prerequisite: MUS 17111 with a grade of C- (1.7) or better. Special fee: $35 flat fee—subject to change.

27111 Piano Class (2)
Continuation of piano classes. Credit acceptable on music major and minor sequences. Prerequisite: MUS 27111. Special fee: $45 flat fee—subject to change.

27112 Piano Class (2)
Continuation of piano classes. Credit acceptable on music major and minor sequences. Prerequisite: MUS 27112. Special fee: $45 flat fee—subject to change.

36111 Applied Music—Piano (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual study. Prerequisite: music (MUS) or music education (MUED) major.

36311 Applied Music—Voice (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36411 Applied Music—Violin (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36412 Applied Music—Viola (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36413 Applied Music—Cello (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36414 Applied Music—Double Bass (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36511 Applied Music—Flute (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36512 Applied Music—Oboe (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36513 Applied Music—Clarinet (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual study. Prerequisite: music (MUS) or music education (MUED) major.

36514 Applied Music—Bassoon (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36515 Applied Music—Saxophone (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36516 Applied Music—Baritone (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36611 Applied Music—Trumpet (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36612 Applied Music—Horn (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36613 Applied Music—Trombone (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36614 Applied Music—Euphonium (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36615 Applied Music—Tuba (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36711 Applied Music—Percussion (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

36912 Applied Music—Guitar (2 or 4)
A comprehensive study of performance, technique and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: music (MUS) or music education (MUED) major.

40296 Independent Study: Music (1-3)
Individual investigation in music topics not offered as either regular coursework or beyond the scope of existing music major courses. Repeatable for credit. Prerequisite: music (MUS) major and special approval.

47012 Folk Guitar Class I (2)
Development of basic folk guitar performance skills. Prerequisite: none. Special fee: $45 flat fee—subject to change.

47013 Folk Guitar Class II (2)
Continued development of acoustic guitar performance skills, study of performance-related theory and related topics such as open tuning and slide guitar. Prerequisite: MUS 47012. Special fee: $45 flat fee—subject to change.

47311 Voice Class (1)
Class instruction in the fundamentals of correct breathing, tone production and diction. Prerequisite: none. Special fee: $35/credit hour—subject to change. Special fee: $35 flat fee—subject to change.

47411 String Class (1)
(Repeatable for a total of 3 credit hours) Class lessons in basic playing skills, methodology, teaching materials and maintenance of string instruments to enable the student to teach string classes in public schools. Prerequisite: music (MUS) major. Special fee: $35 flat fee—subject to change.

*M*Course ineligible to be repeated for GPA recalculation.

**Courses offered only at Regional Campuses.
Course Descriptions

**NURSING (NURS)**

10050 Introduction to Professional Nursing (1)
Focus on nursing’s development as a discipline and profession. The scope of nursing practice and the health care delivery system are discussed. Prerequisite: none. Special fee: $20 flat fee—subject to change.

20010 Interpersonal and Communication Skills for Health Professionals (2)
A skill development course, with readings, experiential learning activities and oral and written communication assignments. It is designed to help students enhance their self-confidence in interacting with other people, individually or in groups, and develop their capabilities in writing, leading groups and presenting information. Assertiveness techniques, presentation of self, critical thinking and collaboration skills complement the development of interpersonal and communication competencies. Active learning methods are used to facilitate growth at any level of current student development. Prerequisite: sophomore standing and nursing (NURS) major. Special fee: $20 flat fee—subject to change.

20020 Foundations of Assessment and Communication in Nursing (3)
Individuals are assessed as members of families and community members. Communication in nursing is explored. Prerequisite: special approval. Special laboratory fee: $70.50 flat fee—subject to change.

20030 Foundations of Nursing Interventions (5)
Focuses on selected aspects of nursing care to improve the health of individuals within families and groups. Utilizes principles of the interpersonal process, nursing process and professional nursing. Prerequisites: NURS 20010 and 20020 and 20950 and BSCI 20020 with a grade of C (2.0) or better. Special laboratory fee: $100 flat fee—subject to change.

20060 Basic Pharmacology for Nursing Practice (2)
Introduction to general principles of pharmacology. Major classes of pharmacotherapeutic agents, mechanisms of action, pharmacokinetics, dosage and administration; effects and nursing responsibilities. Prerequisites: NURS 20020 with a grade of C (2.0) or better and BSCI 30030 and CHEM 20284. Special fee: $20 flat fee—subject to change.

30030 Nursing of Adults (5)
Emphasizes health promotion and prevention of episodic illness and maintenance of health status. Utilizes nursing process as foundation to provide nursing care composed of clinical experience in acute care settings. Prerequisites: NURS 20030 and 20950 and BSCI 30030 with a grade of C (2.0) or better. Corequisite: NURS 30040. Special laboratory fee: $100 flat fee—subject to change.

30040 Nursing of Adults with Rehab Needs and/or Gerontologic Changes (4)
This course encompasses care of persons and families dealing with gerontologic changes and/or rehabilitation needs. Prerequisites: NURS 20030 and 20950 and BSCI 30030 with a grade of C (2.0) or better. Corequisite: NURS 30030. Special laboratory fee: $89 flat fee—subject to change.

30050 Basic Nursing Informatics (2)
Focuses on the use of nursing informatics for clinical nursing practice, inquiry and communication. Prerequisite: NURS 20020 with a grade of C (2.0) or better. Special fee: $20 flat fee—subject to change.

30063 Spiritual Care of Patients (2)
Study of the spiritual needs of patients and the nurse’s role with regard to these needs. Prerequisites: NURS 20950.

31095 Special Topics (2-4)
Scheduled topics of interest to faculty and students. Prerequisite: sophomore standing.

31096 Individual Investigation (2-4)
For Health Professionals (2)
Prerequisites: special approval.

**MUS**

47511 Woodwind Class (1)
(Repeatable for a total of 3 credit hours) Study of fundamental principles of performance on woodwind instruments; methods and materials for class and private instruction. Prerequisite: music (MUS) major. Special fee: $35 flat fee—subject to change.

47611 Brass Class (1)
(Repeatable for a total of 3 credit hours) Study of fundamental principles of playing and teaching brass instruments. Survey of materials and method books suitable for class and private instruction. Prerequisite: music (MUS) major. Special fee: $35 flat fee—subject to change.

47711 Percussion Class (1)
Study of various percussion instruments (mallets, snare drum, timpani and auxiliary) and techniques of performance. Designed for music educator with no previous percussion experience. Prerequisite: music (MUS) major. Special fee: $35 flat fee—subject to change.

**Courses offered only at Regional Campuses.**

20020 Health Care of Children (4)
Nursing process in family-centered care of children including health and developmental promotion and illness and restorative intervention. Prerequisites: NURS 20030 and 20950 and BSCI 30030 with a grade of C (2.0) or better. Corequisite: NURS 30010. Special laboratory fee: $89 flat fee—subject to change.

20030 Nursing of Adults with Rehab Needs and/or Gerontologic Changes (4)
This course encompasses care of persons and families dealing with gerontologic changes and/or rehabilitation needs. Prerequisites: NURS 20030 and 20950 and BSCI 30030 with a grade of C (2.0) or better. Corequisite: NURS 30030. Special laboratory fee: $89 flat fee—subject to change.

30030 Nursing of Adults (5)
Emphasizes health promotion and prevention of episodic illness and maintenance of health status. Utilizes nursing process as foundation to provide nursing care composed of clinical experience in acute care settings. Prerequisites: NURS 20030 and 20950 and BSCI 30030 with a grade of C (2.0) or better. Corequisite: NURS 30040. Special laboratory fee: $100 flat fee—subject to change.
40005 Professional Nursing Development (3)
Course focuses on professional development and the transition from student to graduate nurse, including interviewing techniques and resume preparation. Classes explore health care economics and policy, political activism, cultural competence, nursing theory, leadership of meetings and managing group dynamics, the future of nursing and health care, nursing practice opportunities, role development, professional nursing organizations, graduate education and specialty certification. Professional skill development continues from NURS 20010. Students have the opportunity to attend a professional nursing organization meeting. Prerequisite: NURS 20010 and 30030 and 30040 and 30060 all with a minimum grade of C (2.0). Special fee: $20 flat fee—subject to change.

40010 Nursing of the Critically Ill (4)
Holistic approach to assessing, intervening and evaluating critically ill persons. Nursing practice in critical care settings with diverse populations. Prerequisites: NURS 30010 and 30030 and 30040 and 30050 and 30060 all with a grade of C (2.0) or better. Corequisite: NURS 40045. Special laboratory fee: $89 flat fee—subject to change.

40020 Community Health Nursing (4)
Concepts of community health nursing with emphasis on health promotion and prevention of population-based health problems. Students are responsible for their own transportation to field experience. Prerequisites: NURS 30010 and 30020 and 30030 and 30040 and 30050 and 30060 all with a grade of C (2.0) or better. Corequisite: NURS 40030. Special laboratory fee: $89 flat fee—subject to change.

40030 Psychiatric Nursing and Mental Health Nursing Care (4)
Focuses on the development of therapeutic relationships with individuals, families and vulnerable populations across the life span who have potential health care needs. Students will learn and apply theory about mental health illness. Prerequisites: NURS 30100 and 30020 and 30030 and 30040 and 30050 and 30060 all with a grade of C (2.0) or better. Corequisite: NURS 40030. Special laboratory fee: $89 flat fee—subject to change.

40045 Integration of Leadership and Management in Nursing (6)
Course provides students with the knowledge and skills for a beginning leadership position (team leader, module leader and primary nurse), applicable to the care of patients in a health care environment. Course provides students with opportunities to synthesize their nursing knowledge and collaborate with their clinical preceptor in preparation for their professional nursing role. Prerequisites: NURS 30010 and 30020 and 30030 and 30040 and 30050 and 30060 with a grade of C (2.0) or better. Corequisite: NURS 40001. Special fee: $110.50 flat fee—subject to change.

40057 Case Management in Healthcare Agencies (2-3)
Course describes roles of institutional, community and insurance-based case managers; identifies mechanisms to establish case management systems; and develops communication, clinical evaluation and financial management skills. Prerequisite: senior standing.

40061 Physical Assessment (2)
Self-instructional course using AV materials, readings and laboratory practice in the performance of physical assessments. Instructor available weekly. Written and performance tests required. Prerequisite: senior standing and nursing (NURS) major.

40062 Nurse Externship in Nursing Practice (4)
Opportunity for professional nursing practice is expanded to a selected population with complex health care needs. Focus is on increasing theoretical knowledge base and using knowledge in complex care situations with patients and their families. Prerequisite: senior standing and nursing (NURS) major.

40085 Introduction to Nursing Inquiry and Research (3)
Introduction to clinical inquiry and research for the professional nurse. Theoretical frameworks appropriate to nursing are used in the development of a nursing research proposal. Prerequisites: NURS 41000; and MATH 10041 or PSYC 21621 or SOC 32220 and 32221 and nursing (NURS) major and special approval. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

40872 Introduction to Nursing Research (3)

41000 Nursing Concepts and Professional Nursing Role Development (5)
The course focuses on nursing concepts and theory, nursing process, and the history of nursing as it relates to the development of professional nursing and the role of the professional nurse. Didactic and clinical content and experiences are designed to assist in analysis of the professional role. Emphasis is placed on student accountability for learning. IP grade permissible. Prerequisite: special approval.

41096 Special Topics (2-4)
Scheduled topics of interest to faculty and students. Topics to be announced when scheduled. Prerequisites: none.

41096 Individual Investigation (2-4)
Designed for the student interested in exploration and research of material not covered in required nursing courses. Prerequisites: NURS 30160 and 30361 and 30462 and 30870.

42000 Leadership/Management for the Professional Nurse (5)
The course is designed to assist RN students utilization of existing personal and professional knowledge and experiences in the study of leadership and management. Facilitates discovery of how nursing and leadership theories define and enhance practice. Assists students in analyzing the relationship between nursing, the professional nurses' leadership/management roles, and the articulation between nursing research and practice. IP grade permissible. Prerequisite: NURS 41000.

44000 Community-Oriented Nursing Practice (5)
Concepts of community-oriented nursing practice with emphasis on improving the health of the community. This course is a Web-based course designed for registered nurses completing the RN-BSN/MSN program. 3 credit hours of class and two credit hours of clinical. Prerequisite: NURS 41000.

NURS TECHNOLOGY (NRST)**
All nursing courses must be taken in sequence.

10001 Foundations of Nursing Agency (5)
Development of basic nursing skills and physical assessment. The student will begin implementation of the nursing process using Universal Self-Care. Prerequisites: as an organizational framework. Prerequisite: nursing technology (NRST) major.

10002 Introduction to Nursing Process (1)
Orem’s theory is used as the organizing framework. The nursing care plan format using the nursing process is presented. Prerequisite: nursing technology (NRST) major.

10003 Nursing Agency I (6)
Emphasizes broad concepts common to nursing practice. Increasingly complex skills are introduced. Care focuses on simple therapeutic self-care demands. Prerequisites: minimum grade of C (2.0) in BSCI 20020; and CHEM 10054 or CHEM 10050 and 10052; and US 10097; and NRST 10001 and 10002; and cumulative GPA of 2.0 and nursing technology (NRST) major.

10004 Older Adult Developmental Self-Care (2)
Age-related and pathological changes of aging. Includes nursing care approaches for older patients with health deviations. Prerequisites: admission to the nursing (NRST) program and a cumulative GPA of 2.0 or higher.

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10005  Therapeutic Use of Self (2)
Focus is on the self-care of individuals with emphasis on understanding human relationships in the promotion of self-care. Culture, values and past experiences as factors in communication are explored. Prerequisites: minimum grade of C (2.0) in BSCI 20020; and CHEM 10054 or CHEM 10050 and 10052; and US 10097; and NRST 10001 and 10002; and cumulative GPA of 2.0 and nursing technology (NRST) major.

10006  Transitions in Nursing Agency (3)
Course is designed for the LPN’s advanced placement to the nursing program. It includes content areas from all first-year nursing courses and will have both a theory and a campus lab. Orem’s theory is introduced emphasizing the assessment of the client’s self-care assets and self-care deficits. Prerequisites: BSCI 20020 and 20021 and 20022; and CHEM 10050 or 10052 or 10054; and US 10097 and NRST 10004 with a minimum grade of C (2.0) and a cumulative GPA of 2.50 or higher.

10007  LPN to ADN Bridge Course (2)
Course includes content areas from first-year nursing courses not covered in the statewide Articulation Model (NRST 10006 Transitions in Nursing). Prerequisite: nursing technology (NRST) or pre-nursing (PAND) major and special approval from ADN director.

20206  Nursing Agency II (5)
Nursing care of adults with intermediate therapeutic self-care demands. Emphasis is placed on the nurse as a provider of care. Prerequisites: all 10000-level NRST courses; BSCI 20021 and 20022; PSYC 11762; NUTR 33512; CHEM 10052 with a cumulative GPA of 2.0 or better.

20207  Psychosocial Self-Care Deficits (3)
Focus is on self-care deficits of the emotionally ill patient with emphasis on understanding human needs in relation to the abnormal behavior patterns of the adult. Emphasis continues to be placed on the therapeutic use of self in meeting psychological needs as well as the development of therapeutic communication skills. Prerequisites: all 10000-level NRST courses; BSCI 20021 and 20022; PSYC 11762; and NUTR 33512, with a cumulative GPA of 2.0 or better.

20208  Nursing Agency III (6)
Nursing care of individuals with complex therapeutic self-care demands. Emphasis is placed on the nurse as provider and manager of patient care. Prerequisites: minimum grade of C (2.0) in NRST 20206 and 20207; and NURS 20950; and ENG 11011 or HONR 101097; and SOC 12050; and cumulative GPA of 2.0 or higher; and nursing technology (NRST) major.

20209  Maternal/Newborn Development Self-Care (2)
Nursing care of the expectant and newly delivered family. The nursing approach acknowledges the mother’s self-care abilities and dependent care agent role. Health deviations related to childbearing are incorporated. Prerequisites: All 10000-level NRST courses; BSCI 20021 and 20022; CHEM 10052; PSYC 11762; NUTR 33512 and NURS 20950.

20210  Child and Family Development Self-Care (2)
Family-centered nursing care of children. Developmental self-care requisites and common health deviations are emphasized. Prerequisites: NRST 20206 and 202027 and HRES 20650 and ENG 11011 and SOC 12050 and a cumulative GPA of 2.0 or higher.

20211  Contemporary Nursing Issues (1)
Major social, economic and educational trends are studied. The focus is on the role of the associate degree nurse as a member of the profession. Prerequisites: NRST 20206 and 202027 and NURS 20950.

21095  Special Topics (2-4)
Scheduled topic of interest to students and faculty. Prerequisites: none.

21096  Individual Investigation in Nursing (1-3) (Repeatable for a total of 18 hours) Readings and/or investigation of nursing topics supervised by nursing faculty. Prerequisite: special approval of director.

Students must complete 36 credit hours of the nursing curriculum with a cumulative 2.00 GPA to progress to the second year of the nursing program.

Students must achieve a C grade (2.0) or better in each nursing course in order to progress in the nursing sequence.

The Associate Degree in Nursing program, Regional Campuses, Kent State University, reserves the right to initiate changes in the program as deemed necessary for maintaining quality nursing education.

NUTRITION AND DIETETICS (NUTR) 23511  Science of Human Nutrition (3)
Basic concepts and principles in the science of human nutrition, energy balance and weight control, individual nutrient needs, diet selection, nutrition related metabolism and physiological functions, nutritional diseases and current human nutrition controversies. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirement (LER).

33512  Nutrition (3)
Functions, sources and interactions of essential nutrients. Nutritional needs of family members, methods of meeting these needs, sources of reliable nutrition information. Prerequisites: CHEM 10060 and 10061 and 20481; or CHEM 10050 and 10052; or CHEM 10054.

32622  Applied Nutrition (3)
Application of nutrition principles including nutrition assessment, charting of medical records, interviewing, counseling, nutrition education, food exchange lists, nutrition surveys and dietary standards. Nutrition and dietetics majors only. Prerequisites: NUTR 23511 and PSYCH 11762 and SOC 12050.

41092  Practicum in Nutrition (2-4)
Directed professional training experiences in the field of nutrition and dietetics. Prerequisite: special approval.

41093  Workshop in Nutrition (1-3)
Workshop setting dealing with a topic or topics in the field of nutrition and dietetics. S/U grading. Prerequisite: none.

41095  Special Topics in Nutrition (1-4)
Discussion of a major topic within a specific field in nutrition and dietetics. Prerequisite: written special approval from instructor.

41096  Individual Investigation in Nutrition (1-3) Independent study in nutrition and dietetics. Prerequisite: written special approval from instructor.

43013  Experimental Methods in Nutrition (3) Students will gain laboratory experience in the biochemical methods of assessing nutrition status and the identification of nutrition-related conditions. Principles of experimental design and data analysis and techniques of scientific writing will be applied. Prerequisite: NUTR 33512. Special fee: $6.66/credit hour—subject to change. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

*NCourse ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
43016  Cultural Aspects of Food, Nutrition and Health (3)
Cultural overview of racial, ethnic and religious popula-
tion groups residing in the United States and the
impact on food habits, nutritional and health status,
and counseling concerns. Prerequisite: NUTR 23511.

43513  Advanced Nutrition (3)
Mechanisms through which nutrients meet the
human biological needs. Fundamental concepts
underlying applied human nutrition. Evaluation and
interpretation of research findings. Prerequisites:
NUTR 33512 and BSCI 30030 and CHEM 30264.

43514  Clinical Diabetics (5)
Application of the principles of normal nutrition to diet
in disease, effect of pathological conditions on nutri-
tional needs. Prerequisites: NUTR 33522 and 43513.

43515  Community Nutrition (3)
Introduction to nutrition problems and practices in
the community. Study of legislation, philosophies,
management strategies and agencies affecting nutri-
tional care. Prerequisites: NUTR 33522 and 43513.

43518  Maternal and Child Nutrition (3)
Nutrition requirements and problems: pregnancy,
lactation, childhood and adolescence. Prerequisite:
NUTR 33512.

43520  Nutrition for Fitness (3)
This course will explore the relationship between
nutrition, health and exercise. Dietary change for
improved health and fitness will be discussed as
well as the impact of diet and exercise on body
composition and weight. Prerequisite: NUTR 33512.

43521  Food Choices for Prescribed Dietary
Modification (2)
Adapting adequate normal diet in terms of food
choices to accommodate prescribed food restriction
or bodily dysfunction. Not open to dietetic majors.
Prerequisite: NUTR 23511.

43523  Nutrition and Diabetics: Professional
Practice (1)
Development of professional awareness. Evaluation
of professional growth and formulation of plans for
continued growth. Prerequisite: Nutrition (NUTR)
major and senior standing.

OCcupational therapy assistant
Technology (OCAT) **

10000  Introduction to Occupational Therapy (3)
Introduction to the profession of occupational ther-
apy, its place in the health care system, and the role
and function of the OTR and the COTA. Prerequisite:
none.

10001  Therapeutic Media I (3)
Development of skills in the use of craft media as a
basic approach to occupational therapy practice.
Includes concept of activity analysis and problem
solving. Prerequisite: occupational therapy assistant
technology (OCAT) major. Special fee—$25 flat
fee—subject to change.

10002  Therapeutic Techniques I—
Psychosocial (5)
Application of occupational therapy skills and tech-
niques in treatment programs, concerned with psy-
chosocial dysfunction. Prerequisites: minimum
grade of C (2.0) in OCAT 10000 and occupational
therapy assistant technology (OCAT) major and
special approval.

20000  Therapeutic Techniques II—Physical
Dysfunction I (5)
Application of occupational therapy skills and tech-
niques in treatment programs, specifically con-
cerned with physical dysfunctions. Prerequisite:
minimum grade of C (2.0) in OCAT 10002 and PTST
10002 and occupational therapy assistant technolo-
y (OCAT) major and special approval.

20001  Occupational Therapy Management
Skills (2)
Introduction to skills required for performing admin-
istrative tasks in the occupational therapy depart-
ment. Also includes professional issues. Prerequisite:
OCAT 10002 and special approval.

20003  Therapeutic Media III (3)
Development of skills utilized in adapting equipment
for patients/clients to carry out activities of daily liv-
ing. Prerequisite: none. Special fee: $25 flat fee—
subject to change.

20004  Therapeutic Techniques III—
Developmental Disabilities (3)
Application of occupational therapy skills and tech-
niques applied to patients/clients with developmen-
tal disabilities. Prerequisite: OCAT 20000.

20005  Clinical Applications (8)
(320 clinical laboratory hours) Under the supervision
of personnel in selected health care agencies, the
student will apply knowledge, skills and techniques
acquired in prior and concurrent OCAT courses. Pre-
requisite: minimum grade of C (2.0) or better in
OCAT 10000 and 10001 and 10002 and 20000 and
20001 and 20003 and 20004 and 20006 and occupa-
tional therapy assistant technology (OCAT) major
and special approval.

20006  Therapeutic Techniques IV—
Physical Dysfunction II (3)
Continued application of occupational therapy skills
and techniques in treatment programs in the area of
physical dysfunction. Prerequisite: minimum grade
of C (2.0) in OCAT 10002 and 20000 and PTST
10002 and occupational therapy assistant technolo-
y (OCAT) major.

OFFICE OF INTERNATIONAL
AFFAIRS (OIA)

10095  Special Topics: Study Abroad (0-20)*
This course provides a vehicle for registering stu-
dents enrolled in study-abroad programs involving
approved Kent State University exchanges with for-

diary universities. Prerequisite: special approval.

PAN-AFRICAN STUDIES (PAS)

For placement and credit in foreign
language courses see Arts and Sci-
ences—Foreign Language Require-
ment—Placement and Credit.

10101  Elementary Kiswahili I (4)
This course is an introduction to Kiswahili in which
students will learn the essentials of speaking, read-
ing and writing the most extensively used language
in East Africa. Prerequisite: none.

10102  Elementary Kiswahili II (4)
Continuation of PAS 10101, aimed at advancing
students' knowledge and communication skills in
Kiswahili by introducing Kiswahili literature—short
narratives, proverbs and folktales. Prerequisite: PAS
10101.

13001  Foundations of Pan-African
Studies I (3)
This interdisciplinary course provides a fundamental
understanding of what constitutes the Pan-African
world. Prerequisite: none.

13002  Foundations of Pan-African
Studies II (3)
This interdisciplinary course will introduce students to
the study of the African diaspora. Prerequisite: none.

13003  Elementary Yoruba I (4)
This course is an introduction to Yoruba in which
students will learn the essentials of this West
African language that is also spoken in Cuba and
Brazil. Students will learn tonal pronunciation and
cultural conversation. Prerequisite: none.

13004  Elementary Yoruba II (4)
Continuation of PAS 13003, with emphasis on tonal
pronunciation, cultural conversation and basic read-
ing and writing skills. Prerequisite: PAS 13201.

*Course ineligible to be repeated for GPA recalculation.
**Course offered only at Regional Campuses.
20101 Kiswahili III (3)
Continuation of Kiswahili II, aimed at developing knowledge, competence and recognition of Kiswahili usage in all forms of Kiswahili literature. Prerequisite: PAS 10102.

20102 Kiswahili IV (3)
Continuation of Kiswahili III, aimed at developing knowledge, competence and recognition of Kiswahili usage in all forms of Kiswahili literature. Prerequisite: PAS 20101.

22000 African World Creative Writing (2–6)
Focus on creative writing and performance in the mode and performance styles of people of African descent. Students will write, perform, critique and produce original works. Prerequisite: ENG 21011.

22101 African-American Visual Artists (3)
An Afrocentric survey of visual and aural artistry, course examines cultural context and perspectives, mediums of expression, form, style, content and patronage of African-American artists from 1800. Prerequisite: none.

22200 Introduction to the African Arts (3)
Investigation of function of creative forms of artistic expression particular to experiences of Pan-African community at home and abroad. Prerequisite: none.

22201 Expressivity in African Arts (3)
An African-centered examination of the process and profession of African traditional visual artists; emphasis on sculpture, pottery, fabric, textile design, embroidery, mural decorations in two- and three-dimensional finishes. Prerequisite: PAS 22000.

23001 Black Experience I: Beginnings to 1865 (3)
Study and analysis of the African experience prior to, and following, the arrival of Africans in the New World. Emphasis on North America, South America, Africa and Caribbean. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

23002 Black Experience II: 1865 to Present (3)
The second of two parts, this course continues the period 1865 to present and is a continuation of PAS 23001. Prerequisite: PAS 23001. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

23101 African American History: Slavery to Freedom (3)
(Cross-listed with HIST 31080). Survey of African American history from the colonial period to 1877. Course provides a general knowledge of the social, political and cultural history of African Americans from colonial times to the end of the Reconstruction. Prerequisite: none.

23102 African American History: Reconstruction to the Present (3)
(Cross-listed with HIST 31081). Survey of African American history from 1877 to the present. Course provides a general knowledge of the social, political and cultural history of African Americans from the end of the Reconstruction to the present. Prerequisite: PAS 33101 or HIST 31080.

33110 The Black Woman: Historical Perspectives (3)
This course surveys the experiences of African-American women throughout various periods of history and their roles in shaping the social, economic, political and cultural development of societies. Prerequisite: PAS 23002. This course may be used to satisfy the diversity requirement.

33120 The African-American Man in Contemporary Society (3)
Focuses on various roles of the African-American man within the context of the African experience and the African diaspora. Prerequisite: PAS 23002.

33171 The African-American Community (3)
Explores problems of African-American communities: public administration, transportation, health, public finance, crime and justice, geography/Black demography and education. Prerequisite: PAS 23002. This course may be used to satisfy the diversity requirement.

33200 Ancient African Cultures (3)
This course will be an introduction to the ancient cultures of Africa and their contributions to world civilization. Prerequisite: none.

33202 Intermediate Yoruba II (3)
Continuation of PAS 23201, aimed at advanced competency speaking, writing and reading. Prerequisite: PAS 23002.

24407 Caribbean Studies (3)
Focus on people of African descent in the West Indies and their way of life for the cultural contributions made to Pan-African communities. Prerequisite: PAS 23001 or 23002. This course may be used to satisfy the diversity requirement.

30010 African and African-American Philosophies (3)
(Cross-listed with PHIL 31070). Exploration of philosophical issues in African and African-American thought systems including examination of traditional and emerging approaches to developing conceptions of African and African-American philosophies. Prerequisite: none. This course may be used to satisfy the diversity requirement.

31000 Writing on the Pan-African Community Theatre (3)
This course prepares students to write and publish theatre reviews relevant to Pan-African theatre productions. Students learn the context, content and aesthetics that contribute to the uniqueness of Pan-African theatre. Prerequisite: none.

31092 Practicum in African Theatre Arts (3–6)
(Repeatable for a maximum of 12 hours) Exposes students to fundamental techniques of stage through auditory, visual and physical participation. Students are evaluated in performance and related theatre activities. Prerequisite: special approval. Special fee: $25/credit hour—subject to change.

32010 The Pan-African Essay (3)
Analyzes expository writing by historic and contemporary Pan-African essayists and incorporates various approaches and techniques into student writing. Prerequisite: ENG 21011. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

33100 African-American Family in Historical Perspectives (3)
Examines social, political, cultural and historical factors which have influenced the development of African-American family organization from African shores through the American experience. Prerequisite: PAS 23002. This course may be used to satisfy the diversity requirement.

33310 Latinos, the African Diaspora and American Society (3)
Introduction to Latino minorities. Focus on Mexican-Americans, Puerto Ricans and Cubans, and African influences on Latino culture. Prerequisite: none. This course may be used to satisfy the diversity requirement.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
Caribbean Social and Political Directions (3)  
Twentieth-century West Indian social and political development. Emphasis on federation, independence and nationalism in the Caribbean community as a sector of the total Pan-African community. Prerequisite: PAS 24407.

Introduction to African World View (3)  
Investigates traditional African cosmological world views and aesthetics in global Africa. Prerequisite: PAS 23001 and 23002. This course may be used to satisfy the diversity requirement.

African-American Social, Political, and Economic Systems (3)  
An Afrocentric approach to the interrelated social, political and economic systems of people of African descent. Prerequisite: junior standing.

African Social, Political, and Economic Systems (3)  
An African-centered focus on traditional African institutions as these interact with the Jihad Movements, Western European incursion, the slave trade, colonialism, independence movements and contemporary issues. Prerequisite: junior standing.

African Traditional Architectural Settings (3)  
An African exploration of the interplay among African worldviews, oratures and the artistry and aesthetics of traditional African communal structures. Prerequisite: none.

Oral and Written Discourses in Pan-African Studies (3)  
Examines the spoken and written English of African-Americans with some emphasis on mastering consensus English writing skills required in upper-division PAS courses. Prerequisite: ENG 21011. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

Research Methods in Pan-African Studies (3)  
This course will expose students to the basic components of research methods in Pan-African studies utilizing multidisciplinary approaches. Prerequisite: PAS 37000.

Pan-Africanism and the Model African Union (2)  
Critical examination of Pan-Africanism in the development of the Organization of African Unity (OAU), now African Union (AU). Students prepare to participate as mock delegates in the annual Model OAU/AU Summit. Prerequisite: PAS 13001 or 23002. Special fee: $150 flat fee—subject to change.

The African-Brazilian Experience in Culture and Literature (3)  
(Cross-listed with HIST 31143 and MCLS 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. This course may be used to satisfy the diversity requirement.

Pedagogy for Pan-African Studies (3)  
This course introduces both the data and methodology for understanding and presenting Africa, its geography, history, peoples, cultures and ideologies to elementary and secondary students. Prerequisite: PAS 40120.

Contemporary Issues in African-American Education (3)  
This course examines the interrelationship of contemporary issues and the education of people of African descent. Prerequisite: PAS 13002 or 23002.

Practicum in African-American Affairs (1-12)  
(Repeatable for a total of 12 hours) Guided involvement in urban areas with large African-American populations to provide experience with community service, government agencies, public and private schools, self-help organizations, etc. IP grade permissible. Prerequisite: junior or senior standing.

Special Topics in the Literature of Pan-Africa (3)  
Selected topics in orature, drama, poetry, prose, novel, and criticism in various African world experiences and settings. This course may be repeated up to 12 hours when topics vary. Prerequisites: none.

Black Education in America (3)  
(Repeatable for a maximum of 6 hours) Analyzes the historical, social and political perspectives of educating people of African descent in America. Prerequisite: PAS 13002 or 23002.

Special Topics in Pan-African Literature, Arts and Cultures (3)  
Broadens upper-division offerings in holistic study and performance in Pan-African literatures, arts and cultures. Prerequisites: none.

Afro-Latin America (3)  
(Direct-list with HIST 42142, Focuses on the social, cultural and political life of the African population of Latin America, from 19th century slaves to shantytown dwellers of megacities such as Rio de Janeiro. Topics include black resistance to racism, race mixture in multicultiural societies, and how employment, political participation and family organization empowered the lives of Afro-Latin women. Prerequisite: junior standing.

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.

Special Topics in African Diaspora Studies (3)  
Study of selected topics related to people of African descent outside of the African continent including, but not limited to, the Americas and Europe. This course may be repeated up to 12 hours when the topic varies. Prerequisites: none.

Special Topics in Pedagogy in Pan-African Studies (3-12)  
Study of selected topics in issues, approaches and styles in the education of people of African descent in African and Western settings. This course may be repeated when the topic varies. Prerequisite: none.

Theoretical Approaches to Pan-African Studies (3)  
A critical analysis of the diverse approaches and underlying principles of Pan-African Studies. Prerequisite: senior standing.

Senior Seminar in Pan-African Studies (3)  
Students develop individual topical PAS research papers for presentation before departmental faculty, students and general public. IP grade permissible. Prerequisite: pan-african studies (PAS) major and junior or senior standing. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

Special Topics in Theoretical and Applied Research (3)  
Selected topics in the intellectual, cultural, political and historical development of Pan-Africanism, its diverse theoretical approaches and multiple applications including the Organization of African Unity. This course may be repeated up to 12 hours when topic varies. Prerequisites: none.

The Underground Railroad (3)  
This course examines the Underground Railroad and its impact as an American phenomenon. Related to the Underground Railroad research project under the Institute of African American Affairs. Prerequisite: PAS 13002 or 23002.

Variable Title Workshop in PAS (2-6)  
S/U grading. Prerequisite: special approval.
PHIL

49095 Selected Topics (2 or 3)
Scheduled topic announced. Intended to encourage further study in areas not treated adequately in standard courses. Offered irregularly by available or visiting faculty. IP grade permissible. Prerequisite: none.

49096 Individual Investigation (1-3)
(Repeatable once for credit) Research in areas of interest not available in departmental courses. Approval by faculty member or chairperson necessary prior to registration. IP grade permissible. Prerequisite: junior or senior standing.

PHILOSOPHY (PHIL)

11001 Introduction to Philosophy (3)
An introduction to the diverse methods and subject matters of philosophy. Primary philosophic sources from varied philosophic traditions focus on at least three philosophic areas. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

11009 Principles of Thinking (3)
The place of argument in reasoning and the place of reasoning in thinking are explored through a concentration on argument—its structure, expression, function and limits. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirement.

21001 Introduction to Ethics (3)
This course considers what constitutes ethics, not just which specific acts or act-kinds are ethical, using at least three primary philosophic sources from varied ethical traditions. Prerequisite: none. This course may be used to satisfy the liberal education requirements (LER) and diversity requirement.

21002 Introduction to Formal Logic (3)
Techniques of formal logic, traditional and contemporary. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER).

21003 Ethics in Contemporary Contexts (3)
Interactions of ethical standards, sanctions, conflicts and priorities within contemporary contexts (legal, political, religious, professional, commercial, individual) having their own standards and logic. Prerequisite: PHIL 21001.

21021 Comparative Religious Thought II (3)
Comparative exploration in depth of three religions, selected to represent a Western religion, an Eastern religion and a religion often overlooked in traditional comparative studies. Prerequisite: PHIL 21020. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

21022 Comparative Religious Thought I (3)
Comparative exploration in depth of three religions, selected to represent a Western religion, an Eastern religion and a religion often overlooked in traditional comparative studies. Prerequisite: PHIL 21020. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

30005 Contemporary Moral Issues (3)
Philosophical examination of at least four issues currently debated in society—e.g., gun control, capital punishment, welfare and economic disparity, pornography, affirmative action, excluding ethical issues in medicine. Prerequisite: none.

30009 Women and Philosophy (3)
Selections from Rationalists; for instance, Descartes, Spinoza and Leibniz. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

30015 Medicine and Morality (3)
A philosophical exploration of at least three issues related to current medical practices, which may include ethical, religious, legal and clinical aspects. Prerequisites: none.

30025 Environmental Philosophy (3)
A philosophical examination of conceptions of nature and the relations between human beings and the natural world with emphasis on exploring connections between environment and science, the humanities, law, religion, ethics or aesthetics. Prerequisite: none.

31001 Ancient Greek Philosophy (3)
Examination of issues of Greek thought from its inception through Plato and Aristotle. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

31003 Continental Rationalism (3)
Selections from Rationalists; for instance, Descartes, Spinoza and Leibniz. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

31004 British Empiricism (3)
Selections from British empiricists; for instance, Locke, Berkeley and Hume. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

31005 German Critical Philosophy (3)
Selections from Kant and post-Kantians. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

31006 Nineteenth-Century Philosophy (3)
Selections from works of 19th-century philosophers. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

31010 Twentieth-Century Philosophy (3)
Selections from the most influential schools of thought within 20th-century philosophy: existentialism, pragmatism, logical positivism, analytic philosophy, phenomenology. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

31015 History of Philosophy (3)
Examines the influences and contributions of major philosophers. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

31020 American Philosophy (3)
Selections from principal American philosophers from Colonial times to present. Prerequisites: at least one of PHIL 11009 or 21002 or 30145; and at least one of PHIL 11001 or 21001. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

31030 Existentialism (3)
Development and themes of existentialism. Prerequisite: none.

31035 Philosophy and Justice (3)
Consideration of topics and issues in the general sphere of justice from different perspectives by classical and contemporary philosophers. Prerequisite: none. This course may be used to satisfy the diversity requirement.

31040 Women and Philosophy (3)
Examines the influences and contributions of women to philosophy and the influences philosophy has had on women either historically or currently. Prerequisites: one course in philosophy (PHIL) and junior standing. This course may be used to satisfy the diversity requirement.

31045 Formal Logic (3)
(Cross-listed with CS 31045 and MATH 31045) Study of first-order predicated calculus with identity and function symbols. Prerequisites: none.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
31060 Aesthetics (3)
Investigation of concepts such as the aesthetic object and creative expression, and critique of certain theories designed to solve various problems of aesthetic evaluations. Prerequisite: none.

31065 Philosophies of Religious Experience (3)
Examination of phenomena of religious experience, its structure, ramifications and expression in myth and ritual. Prerequisite: none.

31068 Religious Thought in Contemporary Contexts (3)
An inquiry into religious convictions, beliefs, symbolizations and texts in contemporary contexts in which religious considerations influence conception, valuation or interpretation of a contemporary situation and how contemporary contexts influence religious thought. Prerequisite: none.

31070 African and African-American Philosophies (3)
(Cross-listed with PAS 30010) Exploration of philosophical issues in African and African-American thought systems including examination of traditional and emerging approaches to developing conceptions of African and African-American philosophies. Prerequisite: none. This course may be used to satisfy the diversity requirement.

31072 American Indian Philosophies (3)
Examination of philosophical issues and themes in American Indian world views, with attention given to the reflections of contemporary native scholars. Prerequisites: prior course in philosophy (PHIL) and junior standing. This course may be used to satisfy the diversity requirement.

31075 Philosophy and Multiculturalism (3)
Philosophical examination of various approaches to multiculturalism, in terms of definitions, justifications and relevant alternative views regarding the scope and nature of multiculturalism. Prerequisite: none. This course may be used to satisfy the diversity requirement.

32091 Seminar: Philosophical Reflections (3)
(Repeated registration permissible with departmental approval) Exploration of philosophic literature for contrasting or developing conceptions of human beings. Prerequisite: none.

40005 Health Care Ethics (3)
Ethical problems in health care critically assessed, and consideration of how these specific ethical problems illuminate the ethical enterprise. Prerequisites: none.

40008 Variable Title Workshop in Philosophy (1-6)
S/U grading. Prerequisite: special approval.

40010 Problems in the Philosophy of Religion (3)
Philosophical examination of issues and problems presented by various writers in philosophy of religion. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40105 Philosophical Study of Religion (3)
A philosophical examination of pivotal issues, schools and theorists in the study of religion and the future of comparative studies. This course pursues the academic study of religion at an advanced level. Prerequisite: at least one of PHIL 31001 or 31002 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40120 Social Philosophy (3)
Philosophic examination of theories of societies as proposed by various writers. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40125 Philosophy of Law (3)
Critical examination of the nature and function of law. Prerequisite: none.

40130 Ethical Theories and Practices (3)
Intensive and in-depth study of some dimensions of philosophic traditions in ethics. Prerequisite: at least one of PHIL 31001 or 31002 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40135 Philosophy of Science (3)
Analysis of methodological problems in scientific disciplines. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40140 Theories of Knowledge (3)
Study of various problems in philosophic theories of knowledge with some emphasis on current philosophic challenges on such theories. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40142 Topics in Metaphysics (3)
Philosophical examination of at least three issues in metaphysics with an emphasis on the historical debates that give rise to them and their contemporary contexts. Prerequisite: at least one of PHIL 31001 or 31002 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40145 Metalogic (3)
(Cross-listed with CS 41045 and MATH 41045) Consideration of various metamathememrs, including soundness and completeness of propositional and predicate calculus, undecidability of predicate calculus and incompleteness of the theory of arithmetic. Prerequisite: PHIL 31045.

40150 Philosophical Analysis (3)
Study of major problems in analytic philosophy and subsequent philosophical analysis. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40155 Phenomenology (3)
Investigation of phenomenological movement, its methods and the scope and course of its applications in philosophy and other disciplines. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40160 Pragmatism (3)
Detailed reading from classical American pragmatists, along with some attention to later interpretations and explorations of current reappraisals and developments. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40165 Plato (3)
Detailed examination of selected Platonic dialogues, with some attention to Plato’s development and dismissal of certain pre-Socratic and Socratic themes. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40170 Aristotle (3)
Detailed examination of selected works of Aristotle, with some attention given to Aristotle’s development and dismissal of certain pre-Socratic and Platonic themes. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40176 Continental Philosophy (3)
Investigation of some figure, issue or theme in continental philosophy from Descartes to present. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40177 British and American Thought (3)
Detailed investigation of a figure or issue in British or American philosophy. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

40180 Philosophy and Art in the Modern Age (3)
Exploring, with emphasis on the modern age, philosophical conceptions of art in their interplays with, especially, practicing artists’ attitudes toward theory. Prerequisites: none.
41085 Philosophy and Cultural Theory (3)
A discussion of the philosophical bases of aspects of cultural theory such as post colonialism and the negritude movement. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

41086 Philosophy of Expression (3)
Concentrated study of expression through philosophy of literature, of music, of body, of language or of symbols. Prerequisite: at least one of PHIL 31001 or 31003 or 31004 or 31005 or 31006 or 31010 or 31020.

49995 Special Topics (2-3)
(Repeatable when content varies) Prerequisite: special approval.

49996 Individual Investigation (1-3)
(Repeated registration permissible with departmental approval prior to registration) IP grade permissible. Prerequisite: departmental special approval prior to registration.

49999 Senior Honors Project (2-3)
(Repeated registration permissible with departmental approval prior to registration) Thesis or other independent study or creative project. IP grade permissible. Prerequisite: departmental special approval before registration.

** PHYSICAL EDUCATION BASIC (PEB) **

10001 Adapted Physical Education (2)
Physical education foundations and activities adapted to the capabilities and needs of the handicapped student. Recommended by Kent Health Center. Prerequisite: special approval.

10020 Development and Conditioning (1)
Introduction to the principles of physical training. Practical application of these principles through a variety of activities. Prerequisite: none.

10035 Lifetime Fitness (2)
The role of exercise in enhancing physical fitness. Lectures on principles of planning scientifically sound exercise programs. Laboratory experiences in personal fitness evaluation and exercise routines. Prerequisite: none.

10036 Fitness Walking (1)
Application of sound training methods to achieve personal cardiovascular fitness through participation in a walking program. Prerequisite: none.

10095 Selected Topics: Physical Education Activities (1-2)
Prerequisite: none.

10102 Beginning Swimming (1)
No or minimal swimming ability. Prerequisite: special approval.

10103 International Folk Dance (1)
Prerequisite: none.

10106 Downhill Skiing—Specialization (1)
Five days of intensive skiing at commercial establishment with skill instruction and related lectures. Transportation, lodging, rental, lift fees are assessed. S/U grading. Prerequisite: none.

10125 Basketball (1)
Prerequisite: none.

10126 Basketball—Varsity (1)*
Special approval required.

10202 Intermediate Swimming (1)
Prerequisite: PEB 10102.

10204 Badminton (1)
Prerequisite: none.

10304 Bowling (1)
Prerequisite: none. Special fee: $25 flat fee—subject to change.

10305 Billiards (1)
Prerequisite: none. Special fee: $10 flat fee—subject to change.

10306 Jogging (1)
Prerequisite: none.

10315 Intermediate Billiards (1)
Prerequisite: PEB 10305. Special fee: $10 flat fee—subject to change.

10325 Soccer (1)*
Prerequisite: none.

10403 Beginning Ballroom Dance (1)
Prerequisite: none.

10404 Fencing—Foil Only (1)
Prerequisite: none.

10425 Baseball—Varsity (1)*
Special approval required.

10426 Softball—Varsity (1)*
Special approval required.

10505 Volleyball (1)
Prerequisite: none.

10604 Beginning Golf (1)
Prerequisite: none. Special fee: $6 flat fee—subject to change.

10612 Lifeguard Training (2)
Individuals beyond the lifesaving level are prepared to assume the responsibilities of lifeguards at pools or at nonsurf open water beaches. Prerequisites: PEB 10202.

10704 Intermediate Golf (1)
Prerequisite: none. Special fee: $15 flat fee—subject to change.

10724 Golf—Varsity (1)*
Special approval required.

10802 Fitness Swimming (1)
Application of sound training methods to achieve personal fitness through swimming. Prerequisite: PEB 10202.

10904 Tennis (1)
Prerequisite: none.

10906 Racquetball (1)
Prerequisite: none.

10907 Intermediate Tennis (1)
Prerequisite: PEB 10904.

10916 Intermediate Racquetball (1)
A continuation of the basic techniques of racquetball, with an emphasis on refinement of skill performance, and an introduction to intermediate racquetball techniques and strategies that lead to higher levels of performance. Prerequisite: PEB 10905.

11024 Track and Field—Varsity (1)*
Special approval required.

11025 Cross Country—Varsity (1)
Prerequisite: Special approval required.

11104 Beginning Gymnastics (1)
Prerequisite: none.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
11124 Gymnastics—Varsity (1)*
Special approval required.

11125 Football—Varsity (1)*
Special approval required.

11203 Horsemanship (1)
(Repeatability for intermediate and advanced levels)
One hour riding, one hour lecture per week. Riding emphasis is placed upon acquisition of balance and proper form while maintaining control of the horse. Lecture provides knowledge and practice in care of horse. Prerequisite: none. Special fee: $100 flat fee—subject to change.

11225 Women’s Weight Training (1)
A basic course in the use of equipment in an average weight room and its application toward the development of strength and power. Prerequisite: none.

12324 Weight Training (1)*
Prerequisite: none.

12424 Exercise and Weight Control (1)
Instruction in and practice of exercises based upon proper food selection for the purpose of weight control. Prerequisite: none.

12425 Nautilus Exercises (1)
Fundamental skills and knowledge involved in the use of the Nautilus for fitness development. Prerequisite: none.

12604 Intermediate Fencing (1)
Prerequisite: PEB 10404.

13003 Dance Exercise (1)
An aerobic program concerned with cardiovascular efficiency, flexibility and strength gain which is achieved through dance movement. Prerequisite: special approval.

13006 Cross-Country Skiing (1)
Basic through intermediate nordic skiing technique, waxing, equipment and clothing selection, conditioning, winter safety considerations and trip planning. Student must supply equipment. Prerequisite: special approval.

13008 Intermediate Volleyball (1)
A continuation of the basic techniques of volleyball, with an emphasis on refinement of skill performance and an introduction to intermediate volleyball techniques and strategies that lead to higher levels of performance. Prerequisite: PEB 10505.

13010 Judo-Akido (1)
Prerequisite: none.

13012 Backpacking (2)
Trip planning and leadership, equipment and clothing selection, search and rescue, environmental ethics, map and compass, weekend backpacking trip. Student must supply equipment. Prerequisite: special approval.

13015 Field Hockey—Varsity (1)*
Special approval required.

13016 Cycling (1)
Prerequisite: none.

13017 Volleyball—Varsity (1)*
Special approval required.

13021 Wilderness Route Finding (1)
Map and compass skills are learned to aid in wilderness survival. Easy to difficult courses are set in local parks and forest preserves. Prerequisite: none.

13022 Camping (2)
Basic camping skills including: toolcraft, ropcraft, fire building, cooking, campsite management, equipment selection, safety considerations, environmental ethics, and map and compass for use on weekend trip. Student must supply own clothing and shelter. Prerequisite: special approval.

13023 Rock Climbing (1)
Combination of lecture, activity classes and weekend field trip. Basic instruction in safe rope handling, knots, conditioning, climbing technique, belaying, anchor systems and rappelling. Prerequisite: none.

13024 Beginning Kayaking (2)
Basic paddling skills learned in a pool environment and then experienced in open lakes and whitewater situations. Kayak rental fee assessed. Students must be able to swim 100 yard and tread water for five minutes fully clothed. Prerequisite: special approval. Special fee: $20 flat fee—subject to change.

13025 Basic Sailing (1)
Introduction to skills and procedures needed to enjoy the sport of sailing. Boat design and construction, rigging, safety and a hands-on application stressed. Students must be able to swim 100 yard and tread water for five minutes fully clothed. Prerequisite: special approval.

13027 Winter Backpacking (2)
Adaptation of backpacking skills including trip planning, leadership, equipment, clothing, travel methods, orienteering, safety considerations, search and rescue, and survival skills in the winter environment. Student must supply equipment. Prerequisite: special approval.

13093 Variable Title Workshop in Exercise, Leisure and Sport (1-2)
Workshop in exercise, leisure and sport activities; topics vary; S/U grading. Prerequisite: none.

PHYSICAL EDUCATION PROFESSIONAL (PEP)

15010 Introduction to Physical Education, Fitness and Sport (2)
An introduction to the history, philosophy, structure and changing nature of sport, fitness and the pedagogical aspects of physical education. Overview of the profession and career opportunities. Prerequisite: none.
15013 Development and Analysis of Dance (2)
Development and analysis of dance skills through experience in folk, social, modern and aerobic dance. Prerequisite: PEP 15017.

15014 Development and Analysis of Gymnastic Skills (1)
Development and analysis of gymnastic skills through experiences in conventional gymnastics events. Prerequisite: PEP 15017.

15015 Development and Analysis of Game Performance I (2)
Development and analysis of game performance skills used in net/wall games. Prerequisite: PEP 15017.

15016 Development and Analysis of Game Performance II (3)
Development and analysis of game performance skills used in target games, field/run/score games, and invasion games. Prerequisite: PEP 15017.

15017 Fundamental Motor Skills (1)
Motor skill development and analysis through practice in fundamental motor movements. Prerequisite: none.

15018 Development of Swimming and Aquatic Skills (1)
Development and analysis of basic aquatic skills, swimming strokes, starts and turns, diving skills, physical fitness principles, aquatic safety and basic rescue techniques. Prerequisite: none.

15019 Development and Analysis of Track and Field (1)
Introduction to basic techniques and rules of track and field events. Consideration of relative conditioning, safety and instructional procedures. Prerequisite: none.

25001 Officiating Sport Activities (1-2)
Individual prescriptions for certification in officiating the following sports: basketball, baseball, field hockey, football, gymnastics, etc. Prerequisite: none.

25002 Overview of Outdoor Pursuits and Adventure Education (3)
An overview of outdoor pursuits and adventure education is provided for students preparing to serve students/clients in physically active, outdoor and adventure contexts. Includes a required service learning component, which involves the design and delivery of quality outdoor education programs and/or curricula to children within the local community. Prerequisite: physical education professional (PEP) major. Special fee: $75 flat fee—subject to change.

25003 Lifespan Motor Development (3)
Introduction to motor development across the lifespan. Special emphasis on description of motor development changes and factors influencing change. Prerequisite: PSYC 11762.

25004 Early Childhood Motor Development (3)
Motor development during the early childhood years, with emphasis on factors influencing change. Prerequisite: PSYC 11762. Corequisite: EGED 20163.

25005 Human Anatomy (3)
Structural analysis of the major organ systems of humans. Emphasis is placed on osteology, arthrology, myology, nervous system and cardiopulmonary systems. Lecture and laboratory. Prerequisite: none.

25006 Human Anatomy Physiology I (3)
Comprehensive examination of anatomy and physiology related to the organization of the body and basic cell and tissue types. Specific structure and function of the muscular, skeletal, cardiovascular, nervous and respiratory systems are addressed. Prerequisite: none.

25007 Human Anatomy Physiology II (3)
Comprehensive examination of anatomy and physiology related to the human body under rest and exercise conditions. Specific structure and function of the metabolic, endocrine, lymphatic, digestive, urinary and reproductive systems are addressed. Advanced coverage of neurological, cardiovascular and respiratory systems are also addressed. Prerequisite: PEP 25007.

25008 Psychological Dimensions of Motor Behavior (3)
Psychological factors in exercise, physical activity and sport, emphasizing motor control, learning and performance. Laboratory included. Prerequisites: junior standing and PEP 25068. This course may be used to satisfy the writing-intensive requirement with approval of major department.

25009 Sport in Society (3)
Analysis of how sport relates to the social relations and cultural values of United States society. The course is framed by a critical evaluative perspective, examining how social class, ethnicity, race and gender relations contour sport practices. Prerequisite: none. This course may be used to satisfy the diversity requirements.

25010 Measurement and Evaluation in Fitness and Sport (3)
Measurement and statistics applied to physical education and exercise/sport sciences; laboratory experiences in statistics, test construction and administration, and evaluation. Prerequisite: none.

25011 Exercise Leadership (3)
Designed to provide the students with a knowledge base in exercise leadership. Topic areas and competencies using a variety of techniques in leading and demonstrating safe and effective methods of applying the fundamental principles of exercise science. The exercise leader will demonstrate all forms of group exercise, flexibility and balance training. Prerequisites: PEP 25007.

25012 Coaching Football (2)
Techniques of coaching football, including film analysis and offensive and defensive skills and systems. Prerequisite: not open to freshmen.

25013 Coaching Soccer (2)
Coaching soccer, including analysis of skills, strategy and administrative responsibilities. Prerequisite: not open to freshmen.

25014 Coaching Volleyball (2)
Coaching volleyball, including analysis of skills, offensive and defensive strategy, and administrative responsibilities. Prerequisite: not open to freshmen.

25015 Coaching Gymnastics (2)
Philosophy, fundamentals, skill analysis, spotting, conditioning, administrative and organizational responsibilities. Prerequisite: not open to freshmen.

25016 Coaching Basketball (2)
Coaching basketball, including analysis of skills, offensive and defensive strategy, and administrative responsibilities. Prerequisite: not open to freshmen.

25017 Coaching Wrestling (2)
Fundamental skill development, skill analysis, diet and weight control, team selection methods and administrative responsibilities. Prerequisite: not open to freshmen.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
35047 Coaching Tennis and Golf (2)
Coaching tennis and golf, including skill analysis and organization of tournaments and matches. Prerequisite: not open to freshmen.

35048 Coaching Baseball and Softball (2)
Coaching techniques in softball and baseball, including analysis of basic skills, position play, and offensive and defensive strategies. Prerequisite: not open to freshmen.

35049 Coaching Track and Field (2)
Coaching techniques relative to track and field events. Principles of organization for track and field meets. Prerequisite: not open to freshmen.

35052 Educational Dance/Gymnastics (3)
Analysis of the sequential development of dance and gymnastic skills from foundational movement patterns to conventional skills. Laboratory experiences in teaching children. Prerequisite: PEP 45051.

35054 Biomechanics (3)
Anatomical and mechanical bases of human movement. Emphasis is placed on tools and techniques for motion analysis, mechanical concepts, forces and performance analysis. Lecture and laboratory. Prerequisite: PEP 25051.

35065 History and Philosophy of Sport and Physical Activity (3)
Historical and philosophical foundations of sport and physical education: a study of factors influencing pedagogical, curricular and evaluation decisions in sport and physical education programs today. Prerequisite: PEP 15010. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

35075 Exercise Programming (3)
Problems and issues in developing exercise programs in institutional and commercial settings. Prerequisites: PEB 10035 and BSCI 20020.

35079 Sports Physiology (3)
Application of physiological principles of human performance to sports/exercise. Focus on examples for teaching and coaching. Prerequisite: PEP 25051.

40612 Exercise Leadership for the Older Adult (3)
Designed to provide students with a knowledge base in exercise leadership in the older adult population, including special populations. Students participate in the leading, supervision and evaluation of participants within the exercise program. They also assist in the collection of functional fitness data. Prerequisite: PEP 35022.

43093 Variable Title Workshop in Exercise, Leisure and Sport (1-3)
Workshop in exercise, leisure and sport studies; topics vary; S/U grading. Prerequisite: none.

43098 Research in Exercise, Leisure and Sport (1-3)
(Repeatable to 12 credit hours) Research project completed under the supervision of a faculty member. Written approval of supervising faculty member and school director required prior to registration. Prerequisite: junior standing and special approval.

45015 Psychology of Coaching (3)
Psychological factors affecting athletic performance, with particular attention to practice factors, personality, motivation and problem athletes. Prerequisite: junior standing.

45020 Contemporary Athletic Coaching (3)
A focus on the philosophy, skills, strategies and tactics of coaching within contemporary society. Prerequisite: none.

45021 Organization and Administration of Athletics (3)
An understanding of theories necessary to run an efficient athletic department at all levels, including: budgeting, leadership and administrative theory, organizational structure, personnel, legal issues and facilities. Prerequisite: none.

45037 Adapted Physical Education (3)
An academic and practical approach to physical education for specific disorders. Field-based experience (10 hours). Prerequisites: PEP 25061 and 35054.

45051 Elementary School Physical Education Methods (3)
Approaches to teaching in elementary school physical education. Focusing on sequential curriculum development and on learning outcomes in three domains. Prerequisites: PEP 25033 and 25025 and 15013-15017 and special approval.

45053 Elementary School Physical Education Content (3)
Physical education content for the elementary school child with emphasis on developmentally appropriate learning in three domains. Prerequisites: PEP 25033 and 25025 and 15013-15017 and special approval.

45058 Secondary School Physical Education Methods (3)
Approaches to teaching in secondary school physical education. Focus on sequential curriculum development and on learning outcomes in three domains. Prerequisites: PEP 25033 and 25025 and 15013-15017 and special approval.

45059 Secondary School Physical Education Content (3)
Introduction and development of content, management and organizational skills related to sports and activities utilized in secondary school physical education. Prerequisites: PEP 25033 and 25025 and 15013-15017 and special approval.

45065 Exercise Testing (3)
Lecture and laboratory experiences dealing with the administration and interpretation of exercise tests. Prerequisites: PEP 35075 and 45080.

45070 Electrocardiography for the Exercise Physiologist (3)
Designed to provide students with the knowledge base in electrocardiography. Students work on interpreting the 12-lead electrocardiogram with clinical case studies to enhance the knowledge base of the exercise specialist. Prerequisites: PEP 25057 and special approval. Corequisite: PEP 25058.

45080 Physiology of Exercise (3)
Response of the human to acute and chronic exercise with emphasis on the underlying physiological mechanisms. Prerequisites: PEP 25057 and 25058 and special approval. Corequisite: BSCI 30030.

45091 Senior Seminar (1)
Investigation and study of current problems, topics and/or issues in physical education, exercise or sport. S/U grading; IP grade permissible. Prerequisite: senior standing.

45092 Internship in Physical Education (2-6)
(Repeatable for a total of 8 credit hours) Supervised full-time experience providing knowledge of overall operations for an agency or sports program in an approved setting. Fifty work hours per credit hour. S/U grading; IP grade permissible. Prerequisites: senior standing and special approval.

45096 Individual Investigation in Physical Education (1-3)
(Repeatable for a total of 6 credit hours) Independent study completed under the supervision of a faculty member. Written approval of supervising faculty member and school director required prior to registration. IP grade permissible. Prerequisite: junior standing and special approval.

45392 Internship in Mainstreamed Physical Activity (1-12)
Supervised experience with School of Exercise, Leisure and Sport Motor Development Center participants of all ages and abilities in a mainstreamed situation; assessment, program planning, instruction, report preparation. S/U grading; IP grade permissible. Prerequisite: none.
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45490 Internship Seminar (1)  
(Repeatable for a total of 3 credit hours) Discussion of procedures and expectations for internships in exercise programming. S/U grading. Prerequisite: PEP 35075 and physical education professional (PEP) major.

45492 Internship in Physical Fitness/Cardiac Rehabilitation (2-8)  
(Repeatable for a total of 8 hours) Supervised experience providing practical experience in administration and operation of programs in physical fitness, health enhancement and/or cardiac rehabilitation. S/U grading; IP grade permissible. Sixty clock hours per credit hour. Prerequisites: PEP 45490 and senior standing and special approval.

45502 Internship in Athletic Coaching (2-4)  
(Repeat registration permissible) Supervised experience in organized sport focused upon the duties of a coach; can be at one or more levels (youth, school, college, professional) and sports. S/U grading; IP grade permissible. Sixty contact hours per credit. Prerequisite: PEP 45202 and special approval.

46005 Special Topics in Physical Education (1-3)  
Selected topics in physical education dependent upon interest. Prerequisite: none.

49525 Inquiry into Professional Practice in Physical Education (3)  
Seminar focused on development of those skills and knowledge which enable future teachers to engage in effective reflective, collaborative and ethical professional practice. Prerequisite: admission to advanced study. Corequisite: PEP 49526.

49526 Student Teaching in Physical Education (12)  
This experience provides for a full semester of student teaching in a school setting that is corequisite with PEP 49525. Inquiry into Professional Practice in Physical Education. S/U grading; IP grade permissible. Prerequisite: special approval and admission to advanced study. Corequisite: PEP 49525.

**Physical Therapist Assistant Technology (PTST)**

10000 Introduction for the Physical Therapist Assistant (2)  
Orientation to the field of physical therapy history. Functions and responsibilities. Legal and ethical accountability: Patient rights: Safety. Health care delivery system. Prerequisite: none.

10001 Principles of Patient Care in Physical Therapy (4)  
Underlying principles of physical therapy procedures. Equipment. Fundamentals of patient care relative to the role of the physical therapist assistant. Prerequisite: physical therapist assistant technology (PTST) major. Special fee: $25 flat fee—subject to change.

10002 Analysis of Movement (4)  
Function of the human body with emphasis on the musculoskeletal system. Gross body measurements. Prerequisite: BSCI 11001, Corequisites: PTST 10002 and 10004 and 10005.

10003 Clinical Conditions I (2)  
Introduction to medical conditions commonly encountered in the practice of physical therapy which affect the integumentary, digestive and endocrine systems. Will include general medical testing procedures and psychological disorders. Prerequisite: PTST 10001. Corequisites: PTST 10002 and 10004 and 10005.

10004 Physical Therapy Procedures I (4)  
Theory and techniques of treatment procedures with emphasis on modalities. Maintenance of equipment and supplies. Prerequisite: PTST 10001. Corequisites: PTST 10002 and 10003 and 10005. Special fee: $20 flat fee—subject to change.

10005 Directed Practice in Physical Therapy I (2)  
Introduction to the practice of physical therapy procedures in the clinical setting under the supervision of a licensed physical therapist. IP grade permissible. Prerequisite: PTST 10001. Corequisites: PTST 10002 and 10003 and 10004.

10009 Medical Terminology (1)  
Terminology utilized by the medical profession. Emphasis is on definition, spelling, pronunciation and correct usage of terms. Prerequisite: none.

20001 Therapeutic Communications in Physical Therapy (1)  
Focus on understanding human behavior, emotional needs of individuals, therapeutic use of self, and development of communication skills and interpersonal relationships. Prerequisite: none.

20003 Clinical Conditions II (2)  
Continued study of medical conditions commonly encountered in the practice of physical therapy. Focus on orthopedic and cardiopulmonary pathologies. Prerequisite: PTST 10003. Corequisites: PTST 20004 and 20005.

20004 Physical Therapy Procedures II (4)  
Continuation of theory and techniques of treatment procedures. Emphasis on correlating equipment with treatment procedures and correlating application with dysfunction. Prerequisite: PTST 10004. Corequisites: PTST 20003 and 20005. Special fee: $25 flat fee—subject to change.

20005 Directed Practice in Physical Therapy II (5)  
Discussion and practice of physical therapy procedures and techniques in an institutional setting under the supervision of licensed physical therapy personnel. Prerequisite: PTST 10005. Corequisites: PTST 20003 and 20004.

20006 Physical Rehabilitation Procedures (4)  
Principles and techniques of therapeutic exercise and rehabilitation in physical therapy. Prerequisite: PTST 20005. Special fee: $25 flat fee—subject to change.

20007 Directed Practice in Physical Therapy III (6)  
Continued discussion and practice of physical therapy procedures and techniques in an institutional setting under the supervision of licensed physical therapy personnel. Prerequisite: PTST 20005.

20008 Clinical Conditions III (2)  
Continued study of medical conditions commonly encountered in the practice of physical therapy. Focus on geriatric disorders, pharmacology, neurological disorders, fetal development/normal development, genetic and pediatric disorders. Prerequisites: PTST 10003 and 20003.

**Physics (PHY)**

Note 1: PHY 13001 and 13002 do not require the use of calculus.

Note 2 PHY 23101 and 23102, which use calculus, should be taken by majors in physics, mathematics, chemistry B.S., industrial technology science option, aerospace science option and pre-engineering.

Note 3: Credit is not granted for both the PHY13001/13002 and the 23101/23102 series, nor for the PHY 13001/13002 series.

11030 Seven Ideas That Shook the Universe (2)  
Description of major revolutionary physical concepts and their implications for understanding the physical universe. Not counted toward physics major. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER).

*Course ineligible to be repeated for GPA recalculation.

**Courses offered only at Regional Campuses.
**Course Descriptions**

11660 Physical Science (3)
A course integrating basic concepts in chemistry, physics and astronomy. Prerequisite: none. Because this course represents a partial overlapping of the material in beginning courses in chemistry and physics, students should not take both PHY 11660 and either general chemistry or general physics. Ordinarily, credit is not allowed for such duplication. Any student affected by this principle should consult with the department chair of chemistry or physics. This course may be used to satisfy the Liberal Education Requirements (LER).

12000 Introductory Physics Seminar (1)
To provide a nurturing course for new physics majors, ideally to be taken in their first semester as majors. The course includes a journal club component, informational talks by industrial physicists and training in a select group of essential skills and tools for future work in the physics program. S/U grading. Prerequisite: none.

12111 Physics for Health Technologies (3) **
Basic physics applied to health technologies: measurement techniques, force and motion of solids and fluids, energy, heat, wave phenomena, electricity. Prerequisite: physical therapy assistant technology (PTST) major.

12201 Technical Physics I (3) **
Introduction to principles of physics: mechanics. Two-hour lecture/recitation and two-hour laboratory weekly. Prerequisite: MATH 11010. Pre/corequisite: MATH 11022 or 12001.

12202 Technical Physics II (4) **
Introduction to principles of physics: fluids, thermodynamics, electricity and magnetism. Three-hour lecture/recitation and two-hour laboratory weekly. Prerequisite: PHY 12201.

12411 Introduction to Computer Hardware (3)
Laboratory-lecture course designed to introduce the computer scientist to the digital logic and memory circuits and the concepts fundamental to computer hardware. Two-hour lecture and two-hour laboratory weekly. Prerequisite: none.

13001 General College Physics I (4)
Principles of mechanics, heat and sound. Three-hour lecture and one-hour recitation weekly. Prerequisite: PHY 13021 or 23101. Pre/corequisite: MATH 11022 or 12001 or 12011. This course may be used to satisfy the Liberal Education Requirements (LER).

13002 General College Physics II (4)
Principles of electricity and magnetism, optics and modern physics. Three-hour lecture and one-hour recitation weekly. Prerequisite: PHY 13001 or 23101. Pre/corequisite: PHY 13022. This course may be used to satisfy the Liberal Education Requirements (LER).

13011 College Physics I (2)
Principles of classical physics, primarily mechanics. Three-hour lecture and one-hour recitation weekly. This is a flexibly scheduled course that meets concurrently with PHY 13001 for the first half of the regular term. Corequisite: PHY 13021. Pre/corequisite: MATH 11022 or 12001 or 12012. This course may be used to satisfy the Liberal Education Requirements (LER).

13012 College Physics II (2)
Principles of classical physics, primarily electricity and magnetism. Three-hour lecture and one-hour recitation weekly. This is an irregularly scheduled course that meets concurrently with PHY 13002 for the first half of a regular term. Prerequisite: PHY 13001 or 13011 or 23101. This course may be used to satisfy the Liberal Education Requirements (LER).

13201 General College Physics Laboratory I (1)
Introductory lab to accompany PHY 13001 or PHY 13011. Corequisite: PHY 13001 or 13011. This course may be used to satisfy the Liberal Education Requirements (LER).

13202 General College Physics Laboratory II (1)
Introductory lab to accompany PHY 13002 or PHY 13012. Corequisite: PHY 13002 or 13012. This course may be used to satisfy the Liberal Education Requirements (LER).

30095 Special Topics (1-3)
Topic announced when scheduled. Prerequisite: none.

21041 Physics in Entertainment and the Arts (1)
Laboratory component of PHY 21040. Two-hour laboratory weekly. Pre/corequisite: PHY 21040. Two special fees: $20 flat fee—subject to change. This course may be used to satisfy the Liberal Education Requirements (LER) and the science laboratory component of the Ohio Transfer Module.

21430 Frontiers in Astronomy (3)
Modern description of astrophysical observations, the results of these observations and the physical principles based on them. Not counted toward requirements for major in physics. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER).

22564 Introduction to Materials Physics (3)
Survey of mechanical and electronic properties of materials with application in science and technology. Metals, semiconductors, ceramics, polymers and liquid crystals and other special materials will be addressed. Prerequisite: PHY 23102.

22811 Forensic Physics (4)
Fundamental physical concepts are related to various forensic activities including evidence analysis, ballistics, auto collision analysis and radioactive materials accidents. Three-hour lecture and two-hour laboratory weekly. Prerequisite: none.

23011 General College Physics I (5)
Principles of mechanics, heat and sound at calculus level. Four-hour lecture/recitation and three-hour laboratory weekly. Pre/corequisite: MATH 12002.

23102 General College Physics II (5)
Principles of electricity, magnetism, light and modern physics at calculus level. Four-hour lecture/recitation and three-hour laboratory weekly. Prerequisites: PHY 13001 or 23101. Pre/corequisite: MATH 12003.

24001 Astronomy (3)
Astronomical measurements and their instruments, the solar system of planets, the sun and stars, spectra, radiation, evolution of stars, galaxies, concepts of cosmology. Not counted toward physics major. Prerequisite: MATH 11010. Pre/corequisite: MATH 11022 or 12001. This course may be used to satisfy the Liberal Education Requirements (LER).

30006 Special Topics (1-3)
Topic announced when scheduled. Prerequisite: special approval.

32511 Electronics (4)
“Hands-on” course to give the student a working knowledge of analog electronics and of AC and DC circuits typically used by the scientist. Prerequisites: PHY 13002 or 23102; and MATH 12002.

32562 Aerodynamics (3)
Multispeed aerodynamics including topics in fluid mechanics, airfoil and wing theory, stability and control, performance and aerodynamic loads. Prerequisite: PHY 13002 or 23102.
Course Descriptions

PHY

34000 Cosmology (3)
This course will provide a quantitative introduction to modern cosmology, from the big bang to the formation of the first stars. Subjects include the evolution of the geometry and temperature of the universe, its composition and select aspects of general relativity. Prerequisite: PHY 36001.

35101 Classical Mechanics (4)
Modern description of mechanics including both Lagrangian and Hamilton formulations, with applications to central-force motion, coupled oscillations, rigid body motion and motion in non-inertial reference frames. Prerequisites: PHY 23102 and MATH 20202.

35402 Scientific Computing (2)
Solution of scientific problems with a PC using FORTRAN or C language. Includes applications to integral and differential equations of physical sciences. IP grade permissible. Prerequisites: MATH 22005 and 10 credit hours of physics (PHY) courses.

35611 Microprocessor-Based Design I (3)
Microprocessors as the basis for intelligent controllers and instruments. Signal analysis, input/output, interrupt handling and data connectors. IP grade permissible. Prerequisites: PHY 12411 and CS 10061.

36001 Introductory Modern Physics (3)
Special theory of relativity, Rutherford-Bohr model of atom, quantization of light, matter waves, Schrödinger equation, hydrogen atom, electron spin, multi-electron atoms. Prerequisites: MATH 12003 and PHY 23102.

36002 Applications of Modern Physics (3)
Survey of applications of twentieth century physics. Topics include molecular bonding, conducting and insulating solids, degenerate matter, quantum condensates, subatomic and subnuclear particle physics, cosmology. Prerequisite: PHY 36001.

40020 Advanced Physics Laboratory (2)
(Repeated registration permissible) Advanced experiments in classical and modern physics are selected to accompany and to supplement senior-level physics courses. Prerequisite: PHY 30020. Pre/corequisite: 6 hours of 40000-level physics courses. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

40060 Physical Literature (1-3)
Study of current or topical literature. Prerequisite: special approval.

40092 Internship in Physics (1-3)
(Repeated registration permissible) Supervised capstone experience in physics at a national laboratory, a research university, in industry or at a local research site. No more than 3 credit hours may be applied toward the major electives for physics majors. S/U grading. Prerequisite: special approval.

40093 Variable Title Workshop in Physics (1-6)
Topic announced when scheduled. Prerequisite: special approval.

40095 Special Topics (1-3)
Topic announced when scheduled. Prerequisite: special approval.

40096 Individual Investigation (1-6)
Individual projects for physics majors. IP grade permissible. Prerequisite: 20 credit hours of physics (PHY) courses and special approval of department chairperson.

40099 Senior Honors Thesis (1-10)
Thesis for departmental, general or university honors must be 1-10 hours with continuous registration throughout the senior year beginning in the summer prior to the senior year. Students taking this course must consult with their department and the Honors College and receive approval prior to the first semester of the senior year. IP grade permissible. Prerequisites: Honors senior standing and special approval.

40195 Special Topics (1-3)
Topic announced when scheduled. Prerequisite: special approval.

42500 Physics of Laboratory Devices and Techniques (3)
Physics of semiconducting devices such as diodes, transistors; laboratory techniques using temperature control, vacuum pumps; X-ray, neutron, light, and electron scattering. Prerequisite: PHY 36001.

42512 General Electronic Instrumentation (4)
Laboratory-based course in digital and analog electronics, computer interfacing and computer-based technique all within context of applications in measurements, signal-to-noise enhancement and control instrumentation. Lecture two hours, laboratory four hours weekly. Prerequisite: PHY 32511.

42513 Computer Systems Design (3)
Hands-on experience in selecting and using a microcomputer-based data acquisition and control system in the science laboratory. One hour lecture, four hours laboratory weekly. IP grade permissible. Prerequisite: CS 10061.

44600 Introduction to Biological Physics (3)
Introduces ideas essential to physical understanding of biological systems. Topics include introduction to molecular components of the cell; statistical mechanics and transport in biological systems; selected topics in biophysics. Prerequisite: PHY 23102.

44802 Astrophysics (3)
Galactic structure, stellar formation and evolution, origin of the elements (or nucleosynthesis), nongalactic astronomy and description of various cosmological theories. Prerequisites: MATH 12003.

45201 Electromagnetic Theory (4)
Properties of electric and magnetic fields developed by vector methods. Treatment of static fields in vacuum and matter. Theory of classical electromagnetic fields with emphasis on dynamic fields. Prerequisite: MATH 32052 and 16 hours of physics (PHY) courses.

45301 Thermal Physics (3)
An introduction to thermodynamics and statistical mechanics, with applications in material science and engineering. Prerequisites: PHY 36001.

45401 Mathematical Methods in Physics (4)
Consolidation of vector analysis, curvilinear coordinate systems, tensors, matrix algebra, vector spaces, common groups in physics, calculus of residues, contour integration, methods for differential equations in physics; additional topics important for physics selected from special functions, integral equations, calculus of variations. Prerequisite: MATH 32052 and senior standing.

45403 Data Analysis and Computational Physics Techniques (3)

45501 Electromagnetic Waves and Modern Optics (3)
Interactions between light and matter from both a macroscopic and microscopic perspective; production and controlling light; devices and spectroscopic techniques based on modern optics. Prerequisite: PHYS 4201.

45612 Microprocessor-Based Design II (3)
Design, construction, programming and interfacing of microcontrollers based on a 16-bit microprocessor. IP grade permissible. Prerequisite: PHY 35611.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
46101 Quantum and Atomic Physics (4)
Bohr theory, wave mechanics, wave packets. Applications to barriers, oscillators, hydrogen atom, multi-electron atoms, X-rays, molecular spectra. At level of Eiseberg-Resnick’s Quantum Physics. Prerequisites: PHY 36001 and MATH 22005.

46301 Introduction to Nuclear Physics (3)
Introduction to the concepts of nuclear physics including basic properties of the atomic nucleus, experimental techniques, nuclear models and reactions, nuclear fission and fusion, and elementary particles. Prerequisites: PHY 36001 and MATH 22005.

46401 Introduction to Solid State Physics (3)
Fundamental unifying concepts and experimental techniques needed to understand thermal, electrical and optical properties of ions and electrons in solids. Special topics of current research. Prerequisites: PHY 36002.

**PLASTICS TECHNOLOGY (PLCT)**

12000 Introduction to Plastics (4)
Description of various plastics, outline of polymer chemistry, identification tests, polymerization, molecular growth and molecular weight, extrusion, injection molding, thermoforming, compression molding and related topics. Prerequisite: none.

12003 Reinforced Plastics (3)
Comprehensive review of resin systems and fiber reinforcement for use in production of FRP products. Fabrication procedures. Comparative properties. Prerequisite: PLCT 12000.

12004 Properties of Plastic Materials (3)
Study of the mechanical, electrical, optical and environmental characteristics of various plastics. Making and testing of plastic materials: impact testing, chemical testing, heat stability and electrical testing. Prerequisite: PLCT 12000.

12005 Radiation Polymer Technology I (3)
This course is an introduction to the application of radiation processing technologies on plastic materials. Systems, equipment and mechanisms are discussed. Prerequisites: PLCT 12000 and 12003.

22000 Assembly and Finishing of Plastics (3)
Bonding, printing, electroplating, vacuum metalizing, hot stamping, painting, engraving, welding, sanding and machining. Prerequisite: PLCT 12000.

22001 Plastics Product Design (3)
Plastics product design case studies from the plastics industry, from the initial concept of function through part design, tooling, production and quality assurance. Prerequisite: PLCT 12000.

22002 Plastics Tool Design (3)
Design of molds and tools for plastics processing emphasizing part design, mold design, production aids for after-finishing, quality control. Prerequisite: PLCT 12000.

22005 Plastics Manufacturing (2)
Study of plastics processing technologies including molding and extrusion processes. Behavior of plastic materials under heat and pressure will be studied. Prerequisite: PLCT 12000.

22006 Radiation Polymer Technology II (3)
Comprehensive review of structure, synthesis, transformation and radiation processing of polymeric materials. Prerequisite: PLCT 12005.

22007 Polymer Irradiation Technology (4)
Detailed investigation in radiation processing of polymeric materials including actual processing of materials with a 5 MeV accelerator. Prerequisites: PLCT 12003 and CHEM 10052.

**POLITICAL SCIENCE (POL)**

10001 Introduction to Political Science (3)
This course introduces the history and structure of political science, including its relationship to neighboring disciplines. This course thus asks: What does it mean to study politics? What does it mean to study politics scientifically? What are the consequences of different conceptions of politics? Prerequisite: none.

10004 Comparative Politics (3)
This course introduces the different institutional structures of governance (e.g., parliamentary vs. presidential systems) in a range of different states; for different types of regimes (e.g., democratic and authoritarian); and at the international level. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

10100 American Politics (3)
This course covers the basic elements of politics at the national level in the United States: structures, processes, behaviors, institutions, policies. Special emphasis is given to conflicting theories of power as they apply to different economic, sexual and racial groups. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

10301 Diversity in American Public Policy (3)
This course focuses on the electoral and institutional aspects of sex, race, age and social class as those classifications function as both causes and effects of voting behavior and public law. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

10500 World Politics (3)
A practical, theoretical introduction to a study of systematic patterns in international relations. Includes analysis of rules, instruments, processes, decision-making factors, conflict resolution. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

30001 Political Methods (3)
This course is designed to bring students to a basic level of “statistical literacy” by introducing the fundamentals of research design and interpretation, as well as basic descriptive and inferential statistics. Prerequisite: none.

30002 Political Thought (3)
This course is designed to introduce the student to basic methodological and substantive concerns in the tradition of Western political thought. Prerequisite: none.

30003 Political Economy (3)
This course is designed to introduce students to the fundamental questions surrounding the relationship between the public and private sectors, considered from the perspective of the state and its major political institutions. Of central concern is the growing internationalization of capital and its consequences for both domestic and international politics. Prerequisite: none.

30100 American Political Theory (3)
Major political ideas and controversies associated with the development of American political thought. Prerequisite: POL 10100.

30110 The Congress (3)
This course deals with the powers of Congress, its organization, leadership of the two houses, role of the parties, relationships with the chief executive and the executive agencies, and recent reforms enacted by the House and Senate. Prerequisite: POL 10100.

30120 Presidency and Executive Bureaucracy (3)
Intensive study of the American presidency focusing on personality, organization of the office, use and misuse of power, and policy making. Prerequisite: POL 10100.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
**POL**

30130 Courses (3) Intensive study of the judicial process in the United States and the relationship between the judicial system and the larger American social system. Prerequisite: POL 10100.

30300 Public Policy Theory (3) The core issues of public policy process, institutional contexts and ethical considerations form the basis of this introductory survey of traditional and contemporary theories of public policy. Prerequisite: POL 10300.

30301 Introduction to Public Administration (3) Introduction to the theory and practice of governmental administration, including structure, organization, direction and control of governmental departments and agencies. Prerequisite: POL 10300.

30310 Qualitative Policy Analysis (3) Introduces students to qualitative data analysis techniques used in social science research and policy analysis. Includes research design, tracking, textual analysis, cluster analysis techniques and cross-case analysis. Prerequisite: POL 10300.

30350 Public Sector Dispute Resolution (3) Examines alternative dispute resolution principles applicable to public sector disputes, especially environmental and land use disputes. Prerequisite: POL 10300.

30430 State Government (3) Comparative analysis of state political systems, including political cultures, political parties, pressure groups, executives, legislatures, judiciaries and selected state policies. Prerequisite: POL 10100 or 10300.

30440 State and Local Government (3) Covers the fundamental aspects of governing at the municipal, county and state levels, including financing and dealings with the federal government. Prerequisite: none.

30450 Metropolitan Governance (3) Discusses local governance in the context of metropolitan change and issues such as governing capacity, local democracy, individual choice and economic and racial inequality. Examines the formal and informal arrangements that shape change and public policy. Prerequisite: POL 10100 or 10300.

30460 Federalism and Intergovernmental Relations (3) This course introduces the theoretical and legal infrastructure of federalism and intergovernmental relations. Subsequent course coverage addresses the political, fiscal and management/administration dimensions of recent developments in the intergovernmental system. Prerequisite: POL 10100 or 10300.

30500 International Relations Theory (3) This course introduces competing theoretical approaches to the study of international relations; an examination of the historical developments followed by an examination of current issues in world politics. Prerequisite: POL 10004.

30501 Comparative Theory and Concepts (3) Introduces logic and methods of comparison in politics, institutions and policy. Students apply the comparative method through an individual project and reading, comparing political systems and policies. Prerequisite: POL 10004.

30510 Qualitative Policy Analysis (3) Introduces students to qualitative data analysis techniques used in social science research and policy analysis. Includes research design, tracking, textual analysis, cluster analysis techniques and cross-case analysis. Prerequisite: POL 10300.

30511 Problems of International Organization (3) Intensive study of major European problems handled by international organizations, including the United Nations, and nongovernmental organizations. Combines classroom and field investigations. Registration in the Geneva Semester required. Prerequisite: special approval.

30520 European Politics (3) This course examines major European national political systems (British, French, German, Russian and Scandinavian), relations between the European states, the institutions of the European Union and prospects and problems of European integration. Prerequisite: POL 10004.

30530 Asian Politics (3) This course examines the politics of China, Japan and the Koreas by looking at the relationship between state and industry in these countries. We will look at the rise of the state in each nation and the subsequent roles they have played in industrialization. Prerequisite: POL 10004. This course may be used to satisfy the diversity requirement.

30540 African Politics (3) An analysis of major issues in African politics and international relations. The contemporary development of Africa will be analyzed in the global context of the historical forces of imperialism and colonialism. Prerequisite: POL 10004. This course may be used to satisfy the diversity requirement.

30550 Latin American Politics (3) Analysis of political culture/process in selected Latin American states, with particular emphasis on Mexico, Brazil, Argentina and Colombia. Prerequisite: POL 10004. This course may be used to satisfy the diversity requirement.

30551 U.S.-Latin American Relations (3) Survey of U.S.-Latin American diplomacy, contemporary hemispheric issues and relations between Latin American states themselves. Prerequisite: POL 10004.

30810 Politics of the Global Economy (3) Examines interaction between economics and politics in international relations. Topics: poverty and uneven economic development, political prerequisites for free trade, intrawestern and north-south economic conflict and distributive justice. Prerequisite: POL 10300 or 10500.

30820 International Organization and Law (3) This course introduces the subject matter in historical and theoretical contexts, then devotes detailed attention to the full range of international organizations that exist today. A final section addresses the role of international law in world politics. Prerequisite: POL 10300 or 10500.

30840 Nongovernmental Organizations (3) This course introduces the diverse range of nongovernmental organizations which exist today and explores their varying roles in setting agendas, shaping legislation and implementing public policy reforms. Prerequisite: POL 10300 or 10500.

30901 Seminar: Columbus Program in Intergovernmental Issues (6-12) Annual fall semester resident-study in Columbus, Ohio. Students spend three days per week working at an internship; two days per week attending briefings and completing POL 30430. Prerequisite: minimum 2.50 GPA and special approval. Corequisite: POL 30430.

39592 Geneva Internship (3) Allows students to earn academic credit while performing intern’s duties as part of the Semester in Geneva program. Prerequisite: none.

40112 Politics and the Mass Media (3) This course examines the multiple roles played by the mass media in contemporary politics and analyzes the implications of those roles. Prerequisite: POL 10100.
40116  Public Opinion and Political Behavior (3)
Analysis of determinants of public opinion and political behavior. Study of how the public makes up its mind and impact of public opinion on government policy. Prerequisite: POL 10100.

40118  Political Parties and Interest Groups (3)
An examination of the changing roles of political parties and interest groups in the American political system, including a comparison of their respective electoral activities. Prerequisite: POL 10100.

40182  Constitutional Law: Government Powers (3)
Nature and scope of constitutional government. Study of judicial review, separation of powers, federalism, commerce and taxation. Prerequisite: POL 10100.

40183  Constitutional Law: Civil Rights and Liberties (3)
Nature and scope of constitutional limitations. Study of First Amendment, freedom of expression, freedom of religion, criminal rights, due process, equal protection. Prerequisite: POL 10100. This course may be used to satisfy the diversity requirement.

40191  Seminar in American Politics (3)
(Repeatable with special approval) A required, writing-intensive seminar for juniors and seniors in the American politics concentration. The focus of the seminar will vary depending on instructor. Prerequisite: political science (POL) major and POL 10004 and 10100 and 10300 and 10500 and 30001 and 30002 and 30003 and special approval. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

40220  Ethics and Public Policy (3)
The ethical obligations of public policy makers are examined in this course, within a series of applied cases. The goal is to empower students with the intellectual tools of critical analysis within diverse policy environments. Prerequisite: POL 10300.

40391  Seminar in Public Policy (3)
(Repeatable with permission) A required, writing-intensive seminar for juniors and seniors in the public policy concentration. The focus of the seminar will vary depending on instructor. Prerequisite: political science (POL) major and POL 10004 and 10100 and 10300 and 10500 and 30001 and 30002 and 30003 and special approval. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

40440  U.S. Environmental Politics and Policies (3)
This is a course in United States environmental politics and policies. It deals with topics such as the history of the U.S. environmental movement, public opinion and environmental issues, environmental racism and classism and environmental policy making and implementation. Prerequisite: POL 10100 or 10300.

40450  Social Welfare Policy and the Politics of Poverty (3)
Course surveys American social welfare policy and the politics of poverty in the United States. It deals with the shape of the welfare state, political forces shaping its development, the contours of poverty politics and the dilemmas of political participation and activism for/by the poor. Prerequisite: POL 10100 or 10300.

40470  Women, Politics and Policy (3)
Examines origins, development, current record of century-old women’s movement unique in U.S. annals; compares it with other contemporary social movements. Examines issues of women and public policy. Prerequisite: POL 10100 or 10300. This course may be used to satisfy the diversity requirement.

40530  Politics of War (3)
Examines central questions concerning the justification, explanation, characteristic features and consequences of war. Specific cases will be examined, such as WWII, the Chinese Revolution, Vietnam’s Civil War and potential nuclear war. Prerequisite: POL 10500.

40540  Politics of Development (3)
Examines practice, record and theories of political development for less developed, developing and developed political systems. Includes extensive analysis of issues, problems through case studies. Prerequisite: POL 10004 or 10005. This course may be used to satisfy the diversity requirement.

40560  Human Rights and Social Justice (3)
Examines the relationship between human rights and problems of the Third World in the civic, political, social and cultural arenas. Particular attention is placed on the struggle of women. Prerequisite: POL 10004 or 10005. This course may be used to satisfy the diversity requirement.

40591  Seminar in International Relations-Comparative Politics (3)
(Repeatable with permission) A required, writing-intensive seminar for juniors or seniors in the IR-comparative politics concentration. The focus of the seminar will vary depending on instructor. Prerequisites: political science (POL) major and POL 10004 and 10100 and 10300 and 10500 and 30001 and 30002 and 30003 and special approval. This course may be used to satisfy the writing-intensive course requirement with approval of major department.

40810  Government-Business Relations (3)
This course focuses on the relationship between the public and private sectors, including a theoretical as well as historical analysis of the evolving relationship between the two. Domestic, comparative and international aspects are featured. Prerequisite: POL 10004 or 10300 or 10500.

40830  U.S. Foreign Policy (3)
Examines policy objectives, patterns of decision making and foreign policy actions, roles of interest groups, public opinion, Congress, executive and external influences on policy. Prerequisite: POL 10300 or 10500.

40840  Comparative Foreign Policy (3)
Comparative analysis of foreign policy patterns and determinants on the basis of the examination of foreign policy of selected countries. Prerequisite: POL 10004 or 10300 or 10500.

40891  Washington Program in National Issues (15)
Annual spring semester resident-study in Washington, D.C. Credit hours divided among three units: preparatory colloquium, on-site briefings seminar and internship. S/U grading. Prerequisites: junior standing and 2.75 GPA and special approval of the director.

40902  Public Service (1-3)
Allows academic credit for approved participation in variety of political processes, or as an intern with governmental or private agencies dealing with public affairs. Prerequisites: political science (POL) major and special approval.
PORTUGUESE (PORT)

For placement and credit in foreign language courses see Arts and Sciences—Foreign Language Requirement—Placement and Credit.

17201 Elementary Portuguese I (4)
An introduction to the Portuguese language in the context of Luso-Brazilian cultures. Prerequisite: special approval.

17202 Elementary Portuguese II (4)
A continuation of the introduction to the Portuguese language in the context of Luso-Brazilian cultures. Prerequisite: PORT 17201.

27209 Field Study (1-6)
(Repeatable for a total of 6 credit hours) For residence and/or field research in a Portuguese-speaking community. Prior to registration for this course, student must obtain departmental approval. Prerequisite: special approval.

27210 Intensive Portuguese (5)
Intensive study for students continuing beyond elementary Portuguese and for those with the equivalent of Spanish Composition and Conversation I. Course provides training through Intermediate Portuguese II. Prerequisite: PORT 17202 or SPAN 38211.

37211 Composition and Conversation (3)
Study and practice of oral and written Portuguese. Prerequisite: PORT 27210.

37230 Early Brazilian Literature (3)
Outline of developments in Brazilian literature and reading of representative works from the colonial period to 1822. Prerequisite: PORT 37211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

37331 Recent Brazilian Literature (3)
Outline of developments in Brazilian literature and reading of representative works from 1922 to the present. Prerequisite: PORT 37211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

37421 Luso-Brazilian Civilization (3)
Lectures, readings, oral and written reports on outstanding features of the Portuguese-speaking world with emphasis on Brazil. Prerequisite: PORT 37211.

47093 Variable Title Workshop in Portuguese (1-6)
(Repeatable registration permissible) Workshops individually designed to provide instruction and training in specific areas of Portuguese studies. S/U grading. Prerequisite: departmental special approval.

47095 Selected Topics (3)
(Repeatable registration permissible) Intensive treatment of a selected aspect of Luso-Brazilian literature or linguistics. Topic announced in the Schedule of Classes. Prerequisite: 9 hours of 30000-level Portuguese (PORT) courses.

47096 Individual Investigation (1-3)
(Repeatable for a total of 6 credit hours) Allows the advanced, serious student to carry out research/study project on Portuguese literature, language or culture. Prior approval of supervising faculty member, department required. IP grade permissible. Prerequisite: PORT 27210 and junior standing and special approval.

PSYCHOLOGY (PSYC)

11762 General Psychology (3)
Introduction to the scientific approach to understanding human behavior and mental processes, such as emotions, perceptions and cognitions. Topics may include personality, social and environmental factors, biological aspects of behavior, the experience of emotion and psychological disorders. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER).

20651 Child Psychology (3)
A review of the data, concepts and theories of psychology that contribute to our understanding of child development from conception to age 14. Prerequisite: PSYC 11762. This course may be used to satisfy the Liberal Education Requirements (LER).

21121 Psychology of Adjustment (3)
A review of theories, concepts and data that contribute to our understanding of human adjustment. Topics may include the following: personality, stress and coping, transitions from adolescence to adulthood, psychological disorders and psychotherapy. Prerequisite: PSYC 11762. This course may be used to satisfy the Liberal Education Requirements (LER).

21621 Quantitative Methods in Psychology I (3)
Application of quantitative, statistical methods in psychological research. Descriptive and inferential methods (includes ANOVA, t-test and correlation). Prerequisite: PSYC 11762.

22221 Multicultural Psychology (3)
Examination of areas of psychology upon which diversity issues have a bearing and focused study of psychological issues relevant to African-American, Asian-American, Hispanic/Latino-American and American Indian groups. Prerequisite: PSYC 11762. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

30445 Cognitive Psychology (3)
Covers the mental processes that underlie human thought and behavior, such as, attention, memory, comprehension, reasoning, problem solving and language. Considers established and current theoretical models, research methods and experimental results. Prerequisite: PSYC 11762.

30651 Adolescent Psychology (3)
A review of the theories, concepts and data that contribute to our understanding of the physical, intellectual, educational, personality and social development of adolescents in contemporary society. Prerequisite: PSYC 11762.

30652 Social and Personality Development (3)
Processes and findings in social and personality development, with a focus on childhood and adolescence. Will include the examination of individual differences as well as developmental changes in social function and personality. Prerequisite: PSYC 11762 and one of PSYC 20651 or HDFS 24012.

30655 Cognitive Development (3)
Covers the development of cognitive processes over the lifespan, especially during infancy and childhood. Important theoretical claims, empirical results and research methods of relevant areas, including memory, are critically evaluated. Prerequisite: PSYC 11762 and one of PSYC 20651 or HDFS 24012.

30656 Psychology of Aging (3)
Exploration of basic research and theory on the psychological consequences of aging and psychological factors that affect the behavior of older persons. Prerequisite: PSYC 11762.

30821 Psychology of Motivation (3)
Factors that provide the energy and direction for behaviors, emotions and cognitive processes. Seeks to answer the question “why” concerning the things people do, feel and think. A survey approach is used to include both the traditional and newly-emerging concepts in motivation. Prerequisite: PSYC 11762.

*Course ineligible to be repeated for GPA recalculation. **Courses offered only at Regional Campuses.
31043 Basic Learning Processes (3)  
Examination of basic principles of Pavlovian conditioning, instrumental conditioning, animal learning and memory processes and animal cognition. Emphasis on major empirical phenomena derived from research with animals, with reference to related psychological processes in humans. Prerequisite: PSYC 11762.

31141 Perception (3)  
Investigates how humans detect, organize and interpret information from the environment. Considers how both biological and psychological processes create and influence our perception of the world. Prerequisite: PSYC 11762.

31498 Undergraduate Research (1-6)  
(Repeatable for a total of 16 credit hours but see arts and sciences and psychology major/minor requirements for applicability limits) Individual research open to qualified students. SU grading. IP grade permissible. Prerequisites: PSYC 11762 and special approval.

31574 Research Methods in Psychology (3)  
The rationale, logic and procedures of scientific research in psychology, with an emphasis on measurement, causal inference and research design. Prerequisites: PSYC 11762 and 21621.

31684 Quantitative Methods in Psychology II (3)  
Small sample theory, analysis of variance, linear regression and nonparametric statistics (e.g., Chi Square). This course may include qualitative analyses and computer based data analyses with SPSS. Prerequisite: PSYC 21621.

31773 Industrial Psychology (3)  
Application of principles, facts and theories of psychology to people at work. Includes motivation and satisfaction at work, personnel selection and placement, training and development, performance appraisal, organizational development, quality of work life, ergonomics and consumer psychology. Prerequisite: PSYC 11762.

40111 Abnormal Psychology (3)  
Survey of the definitions as well as the biological, psychological and sociocultural causes of various psychological disorders. Illustrations of these disorders with cases. Overview of treatment approaches to these disorders may be included. Prerequisite: PSYC 11762.

40231 Psychological Assessment (3)  
Introduction to psychometrics and test theory. Use and basic interpretation of intellectual and personality tests. Skills in using tests at a professional level not given. Prerequisites: PSYC 11762 and 21621.

40233 Psychological Interventions (3)  
Application of psychological principles and techniques to the problems of the individual. This course is designed to introduce the field of clinical psychology, including models of understanding abnormal behavior, treatment of individuals, and ethics and professional issues. Prerequisite: PSYC 11762.

40383 History of Psychology (3)  
Course examines the historical context, influences and individuals instrumental in the development of psychology. Course organization is designed to compare and contrast systems, theories and fundamental issues with which psychologists have concerned themselves in past and contemporary stages of the science. Prerequisites: PSYC 11762 and special approval.

40461 Psychology of Language (3)  
Investigates psychological processes involved in language production, comprehension and development. Within each broad area, emphasis is on theories, psychological experiments, key findings and the relationships between theory, method and data. Prerequisites: PSYC 11762 and 30445.

40625 Development of Gender Role and Identity (3)  
A life span, developmental model is used to analyze the changes which occur with age in gender-related role performance and identity formation. Prerequisite: PSYC 11762. This course may be used to satisfy the diversity requirement.

40974 Psychology of Language (3)  
A review of the data, concepts and theories of psychology that contribute to our understanding of personality. Prerequisite: PSYC 11762.

41282 Psychopathology (3)  
Covers the relationship between brain and behavior at the physiological, chemical and anatomical levels. Focuses on the association between the central nervous system and various processes and behaviors such as learning, emotions, neurological disorders and psychopathology. Prerequisite: PSYC 11762.

41363 Biopsychology (3)  
Reports on empirical research in cognitive psychology or human/animal learning. Specific content will vary with the instructor. Repeatable once with instructor and departmental special approval if topic is different. Prerequisites: 3.20 GPA and PSYC 11762 and 21621 and 31574 and special approval. This course may be used to satisfy the writing-intensive requirement.

41381 Health Psychology (3)  
Role of psychological and social factors in health and illness, typically covering three general areas: 1) psychological factors affecting disease, 2) psychological and social consequences of illness, and 3) psychotherapeutic interventions. Prerequisite: PSYC 11762.

41390 Writing in Psychology (1)  
Writing-intensive course taken in conjunction with a 3-credit-hour upper-division psychology course (except PSYC 31498, 41498, 41573, 41574 or 41993). Prerequisite: departmental special approval. This course may be used to satisfy the writing-intensive requirement with approval of major department.

41498 Individual Investigation (1-6)  
(Repeatable for a total of 16 credit hours but see arts and sciences and psychology major/minor requirements for applicability limits) Involves participation in empirical research, review of psychological literature and preparation of a paper or annotated bibliography. IP grade permissible. Prerequisite: PSYC 11762 and special approval.

41532 Social Psychology (3)  
Study of environmental/situational influences on our own and others’ thoughts, behaviors and feelings—focus on topics, such as aggression, attitudes and behaviors, conformity, helping, personal relationships and social cognition. Prerequisite: PSYC 11762.

41573 Laboratory Experience in Psychological Research: Cognitive/Learning (3)  
Intensive experience in the conduct, analysis and reporting of empirical research in social or clinical psychology. Specific content will vary with the instructor. Repeatable once with instructor and departmental special approval if topic is different. Prerequisites: 3.20 GPA and PSYC 11762 and 21621 and 31574. This course may be used to satisfy the writing-intensive requirement.

41574 Laboratory Experience in Psychological Research: Social/Clinical (3)  
Intensive experience in the conduct, analysis and reporting of empirical research in social or clinical psychology. Specific content will vary with the instructor. Repeatable once with instructor and departmental special approval if topic is different. Prerequisites: 3.20 GPA and PSYC 11762 and 21621 and 31574 and special approval. This course may be used to satisfy the writing-intensive requirement.

41990 Writing in Psychology (1)  
Writing-intensive course taken in conjunction with a 3-credit-hour upper-division psychology course (except PSYC 31498, 41498, 41573, 41574 or 41993). Prerequisite: departmental special approval. This course may be used to satisfy the writing-intensive requirement with approval of major department.

41991 Seminar in Psychology (3)  
Seminar on various content areas of psychology. Specific topics announced. Prerequisite: PSYC 11762.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>24001</td>
<td>Radiologic Pathology (3)</td>
<td>Introduction to disease and injury states and their application to radiologic technology. Each anatomical system is discussed and appropriate imaging modalities demonstrated. Prerequisites: BSCI 11000 and HED 14020 and RADT 14002 and 24010 and 24020.</td>
</tr>
<tr>
<td>24010</td>
<td>Clinical Education V (1)</td>
<td>Continuation of Clinical Education IV, with emphasis on clinical practice of content of previous courses. More emphasis on independent clinical practice of procedures previously mastered. Students assigned to clinical education setting 24 hours per week and rotate to special medical imaging areas. Prerequisite: RADT 14013 and radiologic technology (RADT) major.</td>
</tr>
<tr>
<td>24011</td>
<td>Clinical Education VI (1)</td>
<td>Continuation of Clinical Education V, with emphasis on clinical practice of content and previous courses. More emphasis on critical thinking, problem solving and independent clinical practice of procedures previously mastered. Students assigned to clinical education setting 24 hours per week and rotate to special medical imaging areas. Prerequisites: RADT 24010 and radiologic technology (RADT) major.</td>
</tr>
<tr>
<td>24020</td>
<td>Radiographic Procedures III (4)</td>
<td>Radiographic anatomy and positioning of the gastrointestinal, biliary and urinary systems and head positioning. Prerequisite: RADT 14021 and radiologic technology (RADT) major.</td>
</tr>
<tr>
<td>24024</td>
<td>Advanced Imaging (4)</td>
<td>The procedures and equipment used in advanced medical imaging including fluoroscopy, mammography, CT, MRI, cardiac, vascular and interventional imaging, nuclear medicine, PET imaging, diagnostic medical sonography and radiation therapy. Quality assurance is also reviewed. Prerequisite: RADT 14013 and radiologic technology (RADT) major. Corequisite: RADT 14011.</td>
</tr>
<tr>
<td>24048</td>
<td>Radiographic Techniques (3)</td>
<td>Course integrates concepts in radiologic technology for preparation of the radiography certification exam. Prerequisites: BSCI 11000 and RADT 14002 and 14004 and 14022 and 24002 and 24010 and 24020.</td>
</tr>
<tr>
<td>41903</td>
<td>Variable Title Workshop in Psychology (1-6)</td>
<td>Variable topic offered as need arises. Specific topics are announced in the Schedule of Classes. S/U grading. Prerequisites: PSYC 11762 and special approval.</td>
</tr>
<tr>
<td>41009</td>
<td>Introduction to Radiologic Technology (3)</td>
<td>Introduction to: radiologic technology, radiographic anatomy and physiology, imaging equipment, radiographic procedures, radiation protection, radiographic terminology, X-ray tube and production, and X-ray film. Two-hour lecture, three-hour laboratory weekly. Prerequisite: radiologic technology (RADT) major.</td>
</tr>
<tr>
<td>41004</td>
<td>Radiologic Physics (4)</td>
<td>Introduction to concepts of physics. Study of the X-ray machine circuit and components, the production of X-rays and their interaction with matter. Prerequisite: radiologic technology (RADT) major.</td>
</tr>
<tr>
<td>41007</td>
<td>Radiographic Procedures III (4)</td>
<td>Radiographic anatomy, positioning and image evaluation of the upper and lower extremities, shoulder and pelvic girdles, bony thorax and vertebral spine. Three hours lecture and two hours lab. Prerequisite: RADT 14020 and radiologic technology (RADT) major. Corequisite: RADT 14010.</td>
</tr>
<tr>
<td>41006</td>
<td>Individual Investigation in Directed Readings in RADT (3)</td>
<td>Student selects prescribed number of medical journals, completes questions, paper and presentation. Prerequisite: radiologic technology (RADT) major.</td>
</tr>
<tr>
<td>21095</td>
<td>Special Topics in Radiologic Technology (2-4)</td>
<td>(Repeated registration permissible) Student participation course on topics pertinent to radiologic technology. Topics are chosen by the instructor. Students may enroll in course more than once. Prerequisite: special approval of instructor.</td>
</tr>
<tr>
<td>20000</td>
<td>Medical Terminology (2)</td>
<td>Method of construction and recognition of medical terms from Greek and Latin prefixes, suffixes, word roots and combining forms. Radiologic terminology is emphasized. Prerequisite: radiologic technology (RADT) major.</td>
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</table>
Courses offered only at Regional Campuses.

24058 Diversified Employment (3)
Course features multiple topics in medical imaging to prepare graduates for employment in healthcare. Prerequisite: radiologic technology (RADT) major.

24096 Individual Investigation in Radiologic Technology (1)*
Directed research of special interest or need in the student’s program. A research paper will be written on an assigned topic in radiologic technology. Prerequisite: RADT 14000.

24196 Individual Investigation in Advanced Readings in RADT (3)*
Course permits scholarly activities for research, study and summary of medical journal articles. Information aids in understanding recent advancements in medical imaging. Prerequisite: radiologic technology (RADT) major.

RADIOLOGIC AND IMAGING SCIENCES (RIS) **
34003 Radiation Therapy Principles/Practice I (3)
An overview of cancer, radiation therapy and its physical and technical aspects. Includes the roles/responsibilities of the therapist, treatment parameters, documentation of patient care, education and procedures. IP grade permissible. Prerequisite: radiologic and imaging sciences (RIS) major.

34004 Radiation Therapy Patient Management (3)
Provides the basic concepts in patient assessment and evaluation. Includes communication skills, infection control, nutrition, medications, exams, emergencies, patient transfer techniques, medical ethics and law as applied to radiation therapy. IP grade permissible. Prerequisite: radiologic and imaging sciences (RIS) major.

34008 Radiation Therapy Physics I (3)
Introduction to radiation therapy physics, including the fundamentals of atomic structure, radiation properties, radiation production, radiation quality; interactions of radiation with matter and principles of radiation detectors. IP grade permissible. Prerequisite: radiologic and imaging sciences (RIS) major.

34030 Radiation Therapy Clinical Education I (1)
Observation and supervised clinical education with emphasis on administering radiation therapy treatments, simulation, block formation and patient care. Students are assigned to a clinical education site for approximately 16 hours per week. IP grade permissible. Prerequisite: radiologic and imaging sciences (RIS) major.

34042 Abdominal Sonography I (3)
Anatomy, physiology and pathology of the abdomen; instrumentation and scanning techniques; normal and abnormal sonographic appearances of abdominal structures will be presented. Prerequisite: radiologic and imaging sciences (RIS) major.

34044 Ultrasound Physics and Instrumentation (3)
Ultrasound principles to include interaction of sound with matter, propagation of sound in tissue, physical units, transducer parameters, image storage and display, quality assurance, bioeffects, image artifacts, and physical principles of Doppler. Prerequisite: radiologic and imaging sciences (RIS) major.

34045 Ultrasound Clinical Education I (2)
Provides clinical education and experience at a clinical site to allow students the opportunity to practice skills necessary to obtain high quality sonographic images, to alter protocols based on patients and to identify image quality problems. IP grade permissible. Prerequisite: radiologic and imaging sciences (RIS) major.

34052 Abdominal Sonography II (3)
Continuation of RIS 34042; anatomy, physiology, and pathology of the abdomen; instrumentation and scanning techniques; normal and abnormal sonographic appearance of abdominal structures will be presented. Prerequisites: RIS 34042 and 34044 and 34045 and 34083. Corequisite: RIS 44083.

34055 Ultrasound Clinical Education II (3)
Provides clinical education and experience at clinical sites to allow students the opportunity to practice skills necessary to obtain high quality sonographic images, to alter protocols based on patients and to identify image quality problems. IP grade permissible. Prerequisite: RIS 34045. Corequisite: RIS 34062.

34062 Obstetrics and Gynecology Sonography I (3)
Anatomy and pathophysiology of the nonpregnant female pelvis; instrumentation and scanning techniques; normal and abnormal sonographic appearances; and findings of the uterus, fallopian tubes and ovaries will be covered. Prerequisites: RIS 34044 and 34045 and 34052 and 34083. Corequisites: RIS 34065 and 44083.

34065 Ultrasound Clinical Education III (2)
Provides clinical education and experience at a clinical site to allow students the opportunity to practice skills necessary to obtain high quality sonographic images, to alter protocols based on patients and to identify image quality problems. IP grade permissible. Prerequisite: special approval. Corequisite: RIS 44072.

34082 Small Parts Sonography (1)
Anatomy and pathophysiology of superficial structures; instrumentation and scanning techniques; normal and abnormal sonographic appearances of small structures; correlation with laboratory findings and other imaging modalities will be presented. Prerequisites: RIS 34044 and 34083 and 44083. Corequisite: RIS 44075.

34083 Sectional Anatomy in Medical Imaging (3)
Presentation of sectional anatomy of the body in the transverse (axial), sagittal and coronal planes as seen in medical images in CT, MRI and diagnostic medical sonography. Prerequisites: radiologic and imaging sciences (RIS) major and BSCI 11000 or 20020.

34084 Computed Tomography and Magnetic Resonance Imaging Sectional Anatomy I (2)
Presentation of sectional anatomy of the human body in computed tomography and magnetic resonance imaging. Includes orientation of organs and structures and pathological processes present in images. Prerequisite: radiologic and imaging science (RIS) major.

41095 Special Topics in Radiologic and Imaging Sciences (1-3)
Courses will consist of various topics in medical imaging designed to enhance learning outcomes. Prerequisites: radiologic and imaging sciences (RIS) major.

44001 Patient Management in Nuclear Medicine (3)
Provides the student with a working knowledge of a health care facility’s function, basic patient care skills, emergency care, patient communications and professionalism. Interactions and care of diverse populations will also be addressed. Course enables the student to provide appropriate care for the patient while undertaking any nuclear medicine procedure. Corequisite: RIS 44002 and 44005 and 44006 and 44011 and radiologic and imaging sciences (RIS) major.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
44002 Nuclear Medicine Procedures I (3)
An introduction to imaging “in vivo” nuclear medicine procedures. Course focuses on the biological, anatomical and physiological aspects involving the skeletal, cardiovascular, respiratory, genitourinary and gastrointestinal organ systems. Prerequisite: radiologic and imaging sciences (RIS) major.

44005 Nuclear Medicine Clinical Education I (3)
Provides clinical experience at assigned clinical site. Includes orientation to program and policies, observation of procedures, patient management, radiation safety, equipment orientation and the competency procedure. IP grade permissible. Prerequisite: radiologic and imaging sciences (RIS) major.

44006 Nuclear Medicine Physics and Instrumentation I (4)
Presents concepts and physical principles of nuclear medicine physics including interactions with matter. Also presents information on radiation detectors and their applications, functions and limitations. Prerequisite: program admission radiologic and imaging sciences (RIS) major. Corequisite: RIS 44010.

44010 Nuclear Medicine Clinical Education II (3)
Continuation of RIS 44005. Students apply principles of patient care, structure and function, physics, instrumentation, radiation safety and protection, imaging techniques and radiopharmacy to clinical education. Students begin performing clinical competency exams. IP grade permissible. Prerequisite: RIS 44005.

44011 Nuclear Medicine Radiopharmacy (4)
Includes methodologies, calculations and basic properties of radiopharmaceuticals. Radiopharmaceutical chemistry is applied. Localization methods, quality control and radiation safety issues are examined. Non-radioactive interventional drugs, radiopharmacy management and governing rules and regulations are also explored. Corequisites: RIS 44001 and 44002 and 44005 and 44006 and radiologic and imaging science (RIS) major.

44012 Nuclear Medicine Procedures II (3)
Emphasis on the biological, anatomical and physiological aspects of nuclear medicine procedures involving the endocrine and central nervous systems, as well as inflammatory, tumor, miscellaneous and pediatric studies. Prerequisites: RIS 44001 and 44002 and 44005 and 44006 and 44010. Corequisites: RIS 44011 and 44014 and 44015 and 44017.

44013 Radiation Therapy Principles/Practice II (3)
Examines the multidisciplinary treatment approaches. Consists of advanced topics in therapy, chemotherapy, immunotherapy and surgical interventions for combined modalities, for benign conditions and for managing side effects and emergencies. IP grade permissible. Prerequisite: RIS 34003.

44014 Nuclear Medicine Physics and Instrumentation II (3)
Explores the use and quality control of all nuclear medicine instrumentation. The student will understand the function of radiation detection devices to include counting, imaging equipment, SPECT and PET instrumentation. Computer applications as related to nuclear medicine is addressed. Prerequisites: RIS 44001 and 44002 and 44006 and 44011 and radiologic and imaging science (RIS) major. Corequisites: RIS 44010 and 440123 and 44015 and 44017.

44015 Nuclear Medicine Clinical Education III (2)
Continuation of RIS 44010 with emphasis on clinical procedures covered in RIS 44012 and equipment in RIS 44014. Competency testing continues. IP grade permissible. Prerequisites: RIS 44001 and 44002 and 44005 and 44006 and 44010. Corequisites: RIS 44011 and 44012 and 44014 and 44017.

44016 Nuclear Medicine Procedures III (3)
Emphasis on in vitro procedures, immunology, radionuclide therapy, SPECT and PET scanning. Also includes a review of all nuclear medicine procedures. Prerequisites: RIS 44011 and 44012 and 44014 and 44017. Corequisite: RIS 44020.

44017 Nuclear Medicine Radiation Safety (3)
Presents the units of radiation measurement, dose limits, safety and monitoring devices, safe handling of radioactive materials, licensing requirements, therapeutic doses and the effects of radiation on the body. Prerequisites: RIS 44001 and 44002 and 44005 and 44006 and 44010. Corequisites: RIS 44011 and 44012 and 44014 and 44015.

44018 Radiation Therapy Physics II (3)
Continuation of the principles of radiation therapy physics and the study of photon beam dosimetry, electron beam dosimetry and treatment planning. IP grade permissible. Prerequisite: RIS 34008.

44020 Nuclear Medicine Clinical Education IV (2)
Continuation of RIS 44015 with emphasis on advanced procedures, SPECT and PET scanning, advanced and emerging technologies, teleradiology and PACS and critical thinking skills for the clinical site. IP grade permissible. Prerequisite: RIS 44015. Corequisite: RIS 44016.

44021 Patient Management in Computed Tomography (CT) (3)
Provides knowledge about care-giving skills for patients undergoing CT exams. Information includes effective communication, problem-solving techniques, patient safety/comfort, patient preparation, monitoring, contrast agents and venipuncture. Prerequisite: radiologic and imaging sciences (RIS) major.

44022 Computed Tomography (CT) Imaging Procedures (3)
Presentation of information about CT scanning techniques related to each part of the body as well as special studies. Positioning criteria, protocols and variations from routine exams will be included. Image quality evaluation criteria will be discussed. Prerequisite: radiologic and imaging sciences (RIS) major.

44024 Physical Principles of Computed Tomography (CT) (3)
Information presented about data acquisition and processing. The components in the image acquisition system are outlined. The software and technical parameters used in the acquisition of images is discussed. Problem-solving methodologies discussed. Prerequisites: radiologic and imaging sciences (RIS) major and RADT 14004 and COMT 11000.

44025 Computed Tomography (CT) Clinical Education I (3)
Provides clinical education at a clinical site so students can observe and become familiar with CT equipment and procedures, and apply knowledge of physics and patient care. Students begin to perform some CT procedures under direct supervision of technologists. Competency exams required. IP grade permissible. Prerequisite: radiologic and imaging sciences (RIS) major.

44027 Computed Tomography (CT) Clinical Education II (3)
Continuation of RIS 44025. Students apply knowledge of physics, patient care, sectional anatomy and pathology in the performance of CT clinical competency exams. Students act more independently using critical thinking skills. IP grade permissible. Prerequisite: RIS 44025.

44028 Radiation Therapy Radiobiology (3)
Establishes a foundation in radiation biology for radiation therapy. Cell biology and its response to radiation are reviewed as well as the effect of radiation on pathology and body systems. IP grade permissible. Prerequisite: RIS 44018.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
44029  Radiation Therapy Pathology I (3)
General overview of various disease processes with emphasis on cancer types. Includes epidemiology, etiology, symptoms, metastases, histology, tumor grading, staging, detection, screening and diagnosis, treatment, side effects and prognosis of malignancies of the head and neck, central nervous, respiratory and digestive systems. Prerequisites: RIS 34003 and 34004 and radiologic and imaging science (RIS) major. Corequisites: RIS 44013 and 44040.

44031  Patient Management in MRI (3)
Provides information on the role of the MRI technologist in maintaining, patient safety and comfort as well as personal and coworker safety. MR contrast agents and venipuncture will be studied. Includes problem solving with diverse patient types. Prerequisite: radiologic and imaging sciences (RIS) major.

44035  MRI Clinical Education I (3)
Students observe and become familiar with MRI equipment and procedures and apply knowledge of physics, MRI safety and patient care. Students begin to perform some procedures under direct supervision of technologists. IP grade permissible. Prerequisite: radiologic and imaging sciences (RIS) major.

44036  MRI Clinical Education II (3)
Continuation of RIS 44035. Students apply knowledge of physics, patient care, anatomy and pathology when performing clinical competency exams as well as quality assurance procedures. Some applications to special procedure exams. IP grade permissible. Prerequisite: RIS 44035.

44037  MRI Clinical Education III (3)
Continuation of RIS 44036. Students use critical thinking skills in performing MRI exams in the clinical setting and solve problems in a more independent manner. Students complete all required clinical competency exams. IP grade permissible. Prerequisite: RIS 44036.

44038  Radiation Therapy Physics III (3)
Includes determination of radiation intensity, use of high energy beams, linear accelerators, other high energy machines, geometry of photon beams, clinical application in treatment planning and safety. IP grade permissible. Prerequisite: RIS 44018.

44040  Radiation Therapy Clinical Education II (1)
Continuation of RIS 34030 with emphasis on clinical practice of treatment techniques and planning. Students are assigned to clinical education site for approximately 24 hours per week. IP grade permissible. Prerequisite: RIS 34030.

44041  Radiation Therapy Quality Management (2)
Provides overview of quality management programs and continuing quality improvement in radiation therapy. Topics include validity of quality assurance checks, chart checks, image checks, testing on simulators, linear accelerators and brachytherapy sources. IP grade permissible. Prerequisite: RIS 44018.

44042  Radiation Therapy Pathology II (3)
Continuation of RTH Pathology I to include epidemiology, etiology, symptoms, metastases, histology, tumor grading, staging, detection, screening and diagnosis, treatment, side effects and prognosis of malignancies of the reproductive, urinary, endocrine, circulatory, lymphatic, integumentary and musculoskeletal systems as well as pediatric solid malignancies. Prerequisites: RIS 34083 and 44029 and 44040 and radiologic and imaging science (RIS) major. Corequisites: RIS 44028 and 44050.

44043  Radiation Therapy Principles/Practice III (2)
Content examines the health care market with emphasis on current trends in radiation therapy. Focuses on operational issues such as human resource regulations, accreditation agencies, billing and reimbursement and Medicare. IP grade permissible. Prerequisite: RIS 44013.

44044  Magnetic Resonance Imaging Procedures I (2)
Provides the imaging techniques related to the body, special clinical application, coil selection, scan sequences, protocols, positioning criteria, normal and abnormal anatomical and pathologic structures and signal characteristics for all areas of the body except extremities and vascular areas. Corequisites: RIS 44036 and radiologic and imaging science (RIS) major.

44045  Magnetic Resonance Imaging Procedures II (2)
Provides the imaging techniques related to the body, special clinical applications, coil selection, scan sequences, protocols, positioning criteria, normal and abnormal anatomical and pathologic structures and signal characteristics for the extremities and vascular areas. Prerequisites: RIS 44044 and radiologic and imaging science (RIS) major. Corequisites: RIS 44036.

44051  Magnetic Resonance Equipment and Image Acquisition I (3)
Develops an understanding of the physics of MR image acquisition and the hardware used. Provides information in the use and manipulation of the instrumentation and technical parameters used in the generation of images. Establishes safety procedures. Corequisites: RIS 44036 and radiologic and imaging science (RIS) major.

44052  Magnetic Resonance Equipment and Image Acquisition II (2)
Develops an understanding of MR image acquisition and the hardware used. Provides information in the use and manipulation of the hardware and technical parameters used in the generation of images. Reviews safety special applications such as advanced imaging techniques. Enables the students to maximize MR image quality. Prerequisites: RIS 44051 and radiologic and imaging science (RIS) major. Corequisite: RIS 44036.

44060  Radiation Therapy Clinical Education IV (1)
Continuation of RIS 44050 with added emphasis on critical thinking, problem solving and clinical competency. Students are assigned to clinical education site for approximately 24 hours per week. IP grade permissible. Prerequisite: RIS 44050.

44070  Radiation Therapy Clinical Education V (1)
Continuation of RIS 44060 with added emphasis on clinical practice, treatment procedures, simulation and treatment planning. Students are assigned to clinical education site for approximately 24 hours per week. IP grade permissible. Prerequisite: RIS 44060.

44072  Obstetrics and Gynecology Sonography II (3)
Embryonic and fetal development throughout gestation; fetal measurements, normal fetal anatomy and physiology; and abnormal sono graphic appearances of the fetus will be covered as well as invasive obstetric procedures and antepartum testing. Prerequisite: RIS 34062.

44074  Vascular Sonography (2)
Anatomy, physiology and hemodynamics of the cerebrovascular and peripheral venous systems; normal and abnormal sono graphic vascular appearances; Doppler instrumentation and scanning techniques will be covered. Prerequisites: RIS 34044 and 34083 and 44075 and 44083. Corequisite: RIS 44085.
44075 Ultrasound Clinical Education IV (3)
Provides clinical education and experience at a clinical site to allow students the opportunity to practice skills necessary to obtain high quality sonographic images, to alter protocols based on patients and to identify image quality problems. IP grade permissible. Prerequisite: special approval. Corequisites: RIS 34083 and 44084.

44078 Sonographic Techniques (3)
Course integrates diagnostic medical sonography concepts in preparation for certification exams. Prerequisite: radiologic and imaging sciences (RIS) major.

44083 Pathophysiology for Medical Imaging (3)
Provides students with basic information on the causes of diseases and the body’s response to disease, as well as the medical imaging modalities that will demonstrate them. Prerequisite: special approval.

44084 Ultrasound Image Evaluation (1)
Presentation of sono graphic findings in specific disease processes, with evaluation of image quality and emphasis on diagnostic features of pathologic entities. Prerequisites: RIS 34083 and 34044 and 34052 and 44072 and 44083, Corequisite: RIS 44075.

44085 Ultrasound Clinical Education V (3)
Provides clinical education and experience at a clinical site to allow students the opportunity to practice skills necessary to obtain high quality sonographic images, to alter protocols based on patients and to identify image quality problems. IP grade permissible. Prerequisite: special approval. Corequisite: RIS 44074.

44096 Individual Investigation in Medical Imaging Directed Readings (3)
Student selects prescribed number of medical imaging journal articles, completes questions, paper and presentation. Prerequisite: radiologic and imaging sciences (RIS) major.

44098 Research in Medical Imaging (3)
Fundamental concepts and procedures for systematic collection, analysis, critique and application of qualitative and quantitative data in medical imaging. Prerequisites: radiologic and imaging sciences (RIS) major and senior standing. This course may be used to satisfy the writing-intensive requirement with approval of major department.

**REAL ESTATE AND RELATED TECHNOLOGIES (RERT)**

11000 Real Estate Principles and Practices (3)
Introduction to listing, selling, real estate math, legal descriptions of property and contracts. Prerequisite: none.

11001 Real Estate Law (3)
Review of basic Ohio laws covering the functions of an agency and the legal aspects of real estate transactions. Prerequisite: RERT 11000.

11002 Real Estate Financing (2)
Covers types of institutions, instruments and procedures involved in financing real estate transactions. Covers nature and characteristics of mortgage loans and nature of mortgage market. Prerequisite: RERT 11000.

21000 Real Estate Appraisal (2)
Emphasizes methodology of appraising urban real property and appraisal techniques. Presents market approach to residential appraisal. Prerequisite: RERT 11000.

21003 Special Topics in Real Estate (2)
Seminar involving discussion of current issues and solutions to special problems in real estate investment, management and brokerage operations. Prerequisites: RERT 11000 and 11001 and 11003 and 21000.

**RECREATION, PARK AND TOURISM MANAGEMENT (RPTM)**

16000 Foundations of Recreation and Leisure (3)
Historical examination of the park and recreation movement; sociological, economic, psychological and political considerations for the delivery of leisure and recreation services in contemporary society. Prerequisite: none.

26000 Computer Applications in Recreation and Sport (3)
This course focuses on the personal computer and its general function and uses in a recreation and sport environment. Students learn a wide variety of applications and programs pertinent to the recreation and sport industry. Prerequisite: RPTM 16000 or ATTR 15011.

26001 Introduction to Community Inclusion of Individuals with Disabilities (3)
Interdisciplinary exploration of conceptual, theoretical, philosophical and legal aspects related to inclusion of individuals with disabilities in community life. Prerequisite: none.

26010 Community Development in Recreation (3)
Explores the contemporary and historical roles, organization and services of public and nonprofit leisure service providers. Includes various theoretical perspectives on community organization and development, as well as methods available to the recreation practitioner to facilitate the development of recreation services in communities. Prerequisite: RPTM 16000.

26030 Recreation Group Leadership (3)
Group leadership concepts, methods and techniques. Practical experience in planning and conducting recreational activities for a variety of populations. Prerequisite: RPTM 16000. Special fee: $12 flat fee—subject to change.

26080 Introduction to Global Tourism (3)
(Cross-listed with GEOG 22040) Introduction to travel and tourism around the world, including tourism technologies, cultural and natural environments as attractions, benefits of travel, travel ethics and sustainable development. Prerequisite: none.

26081 Principles of Outdoor Recreation (3)
Introduction to outdoor recreation, including the history, economics, resources, management, education and environmental aspects. Prerequisite: RPTM 16000.

36010 Recreation, Leisure and Aging (3)
Knowledge and understanding of leisure and aging. Planning and implementing recreational programs and activities for enriching the lives of older persons. Prerequisite: RPTM 26030.

36040 Inclusion of People with Disabilities in Leisure Services (3)
An examination of attitudes toward people with disabilities, characteristics of various disability groups, the role and responsibility of leisure service providers to be inclusive of all individuals and techniques for adapting programs. Prerequisite: RPTM 26030. This course may be used to satisfy the diversity requirement.

36060 Commercial Recreation and Tourism (3)
Principles of commercial recreation and tourism services, including entrepreneurship, economic concepts of the for-profit recreation industries and management skills. Prerequisite: RPTM 26060.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
36075 Program Design and Evaluation (3)
Programming leisure services within a socio-cultural context, involving understanding and assessing client behavior and needs, proficiency in program design and implementation and knowledge of evaluation methods reflective of a service-centered and benefits approach. Prerequisite: RPTM 26030.

36080 Principles of Therapeutic Recreation (3)
Introduction to the empirical basis of therapeutic recreation practice. Includes information on assessment, activity analysis and the systematic documentation of individualized treatment plans from within the context of therapeutic recreation programs. Prerequisites: RPTM 26030 and 36040.

36081 Adventure Education (3)
Introduction to adventure education, the history and philosophy, initiatives, ropes courses, adventure curricula and the basics of outdoor leadership and process facilitation. Prerequisites: RPTM 26030 and 26081. Special fee: $10 flat fee—subject to change.

36085 Leisure and Culture (3)
Leisure behaviors and beliefs of people from diverse cultures, factors perpetuating inequality in the United States and strategies for leisure programming in a pluralistic society. Prerequisite: none.

36092 Practicum in Therapeutic Recreation (1)
(Repeatable for total 3 credit hours) A 60-hour field experience in a therapeutic recreation setting. Must be approved by the instructor prior to registration. S/U grading. IP grade permissible. Prerequisites: RPTM 16000 and recreation, park and tourism management (RPTM) major and special approval.

36192 Practicum in Leisure Services Management (1)
(Repeatable for total 3 credit hours) A 60-hour field experience in a leisure services setting. Must be approved by the instructor prior to registration. S/U grading. IP grade permissible. Prerequisites: RPTM 16000 and recreation, park and tourism management (RPTM) major and special approval.

46000 Tourism Development and Recreational Travel (3)
(Cross-listed with GEOG 42040) Investigation of travel and tourism development using an interdisciplinary social science approach. Prerequisite: RPTM 36060.

46001 Principles and Methods of Community Inclusion (3)
Interdisciplinary approach to the principles and methods of designing an inclusive environment. Focus is on characteristics of disability groups and societal consideration to making adaptations and accommodations. Students complete a service learning component that focuses on inclusion of people with disabilities in community life. Prerequisite: RPTM 26001.

46030 Dynamics of Leisure Behavior (3)
Analysis of leisure behavior through an examination of social-psychological theories and research. Prerequisites: RPTM 36040 and 36075 and PEP 25060 or PSYC 21621. This course may be used to satisfy the writing-intensive requirement with approval of major department.

46040 Therapeutic Recreation Program Techniques (3)
(Cross-listed with ELS 56040) Intervention/facilitation techniques employed in therapeutic recreation practice. Integration of theory into program plans used in therapeutic recreation for treatment and leisure education services for people with illnesses or disabilities. Prerequisite: RPTM 36090.

46041 Advanced Therapeutic Recreation Program Techniques (3)
Advanced intervention/facilitation techniques employed in therapeutic recreation practice. Professional issues related to therapeutic recreation practice. Prerequisite: RPTM 46040.

46060 Administration of Leisure Services (3)
Administrative practices of private and public leisure service agencies. Organization, philosophy, personnel and fiscal management, public relations and legal concerns are examined. Prerequisites: RPTM 26000 and 36040 and 36075 and 36092 or 36192.

46070 Park Planning (2)
(Cross-listed with ELS 56070) Understanding the relationship between recreation resources (e.g., land and facilities) and the people who use them. This includes the planning, design and functioning of public and commercial recreation places. Prerequisites: RPTM 36040 and 36075.

46071 Maintenance and Operation of Areas and Facilities (3)
A systems approach for the effective maintenance and operation of areas and facilities. Prerequisites: RPTM 36040 and 36075.

46080 Legal Issues in Sport and Recreation (3)
(Cross-listed with ELS 56080) Designed to alert potential recreation and sport professionals to the litigious environment prevalent in the United States, increase awareness of their legal responsibility and risk management. Prerequisite: senior standing.

46091 Seminar for Internship Preparation (1)
Planning and preparation for the internship experience in leisure service settings. Students should register for this course two semesters before enrolling in the internship course. S/U grading. IP grade permissible. Prerequisites: junior standing and recreation, park and tourism management (RPTM) major and RPTM 36092 or 36192; and special approval.

46092 Internship in Recreation (6-12)
Supervised full-time experience providing knowledge of overall agency operation in approved leisure setting. Fifty contact hours per credit hour. S/U grading; IP grade permissible. Prerequisites: senior standing and RPTM 46090 and special approval.

46095 Selected Topics in Recreation (1-3)
(Repeatable for total 6 credit hours) Selected topics dependent upon interest. Prerequisite: none.

46096 Individual Investigation in Recreation (1-3)
(Repeatable for total 6 credit hours) Independent study completed under the supervision of a faculty member. Written approval of the supervising faculty member and school director required prior to registration. IP grade permissible. Prerequisites: junior standing and special approval.

REHABILITATION COUNSELING (RHAB)**
47712 Introduction to Rehabilitation (3)
Introductory course surveys philosophy, history and legislation in rehabilitation, which is defined as a process, social movement and public mandate. Particular emphasis is given to the role and function of the rehabilitation counselor in the private and public sectors. Prerequisite: junior or senior standing.

RESPIRATORY THERAPY TECHNOLOGY (RTT)**
11000 Introduction to Respiratory Therapy (3)
Survey of respiratory therapy as a health care profession. Topics include basic terminology, legal implications for practice, patient safety, recordkeeping and communication, medical ethics, licensure and credentialing, membership in professional associations, professional behavior, and cultural awareness and diversity. Prerequisite: respiratory therapy technology (RTT) major.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
11001 Pharmacology (3)
Principles of pulmonary and conducting airway pharmacology; the treatment of obstructive lung diseases and other disorders. Prerequisite: BSCI 20020 and RTT 11000.

11002 Cardiopulmonary Diseases (3)
Introduction to cardiopulmonary disease. Topics include patient assessment, obstructive airway diseases, infections pulmonary diseases, pulmonary vascular diseases, cancer, environmental lung disease and sleep disorders. Prerequisite: RTT 11000.

11003 Cardiopulmonary Physiology (3)
Principles of cardiopulmonary processes and functions. Topics include pulmonary mechanics, cardiovascular mechanisms and neuromuscular mechanisms. Prerequisites: BSCI 20020 and RTT 11000.

11004 Arterial Blood Gas and Electrocardiogram Interpretation (2)
Principles of obtaining, reading and interpreting arterial blood gas tests and electrocardiograms. Prerequisites: BSCI 20020 and RTT 11000 and 11003.

11005 Mechanical Ventilation (2)
Principles of mechanical ventilation; establishment of initial parameters, ventilation methods, compliance and monitoring. Prerequisite: BSCI 20020 and RTT 11000.

12001 Clinical Education I (1)
Supervised experience and observation with emphasis on oxygen delivery devices, sustained maximal inflation (SMI) and aerosol treatments. Assigned to a clinical education center for 30 hours. Prerequisite: RTT 11000.

12002 Clinical Education II (2)
Continuation of Clinical Education I, with emphasis on aerosol treatments, chest physical therapy (CPT), bronchial hygiene, electrocardiogram (EKG) and oxygen therapy. Assigned to a clinical education center for 60 hours. Prerequisite: RTT 12001.

21000 Critical Care (3)
Principles of patient care in a critical care environment. Topics include: definitions of critical situations, critical care equipment and case studies. Prerequisites: RTT 11001 and 11003 and 11004 and 11005.

21001 Neonatal and Pediatric Respiratory Care (3)
Respiratory system development; evaluation and care of newborn, infant and pediatric patients; common infant and pediatric diseases; and respiratory care of newborns, infants and pediatric patients. Prerequisites: RTT 11001 and 11003 and 11004 and 11005.

21002 Long Term Care and Rehabilitation (3)
Principles of pulmonary function testing (PFT), long term care environments and rehabilitation methods. Prerequisites: RTT 11002 and 11003 and 11004.

21010 Contemporary Issues in Respiratory Therapy (1)
Exploration of major social, regulatory, and educational trends and implications for professional practice. Prerequisite: RTT 11000.

21011 Preparation for Certified Respiratory Therapist and Registered Respiratory Therapist (1)
Preparation for examinations for certified Respiratory Therapist and Registered Respiratory Therapist. Corequisite: RTT 22002.

21012 Special Topics in Respiratory Therapy (1-3)
Scheduled topics of interest to students and faculty. Prerequisite: RTT 11000.

21013 Individual Investigation in Respiratory Therapy (1-3)
Readings and/or investigation of respiratory therapy topics supervised by respiratory therapy faculty. Repeatable for a total of 6 hours. Prerequisite: respiratory therapy technology (RTT) major.

21001 Clinical Education III (2)
Continuation of Clinical Education II, with emphasis on aerosol therapy, oxygen therapy, suction, EKG, ABG, ventilators and ICU. Assigned to a clinical education center for 60 hours. Prerequisite: RTT 12002.

22002 Clinical Education IV (2)
Continuation of Clinical Education III, with emphasis on pulmonary function tests (PFT), neonatal care, critical care, emergency care and pediatrics. Assigned to a clinical education center for 60 hours. Prerequisite: RTT 22001. Corequisite: RTT 21011.

22020 Russian Morphology and Vocabulary Building (3)
A systematic presentation of the extensive root, prefix and suffix system, which provides the basis for rapid acquisition of Russian vocabulary. Prerequisite: RUSS 22202.

22021 Intensive Russian Grammar (3)
A systematic approach to Russian grammar and syntax. Prerequisite: RUSS 22202.

22022 Composition and Conversation (3)
Grammar review and practice in composition and conversation. Prerequisite: RUSS 22202.

22025 Russian Phonetics and Diction (3)
Study of the Russian sound system with special emphasis on pronunciation and intonation. Application of the international phonetic alphabet to Russian. Prerequisite: RUSS 22202.

22026 Translation Practice: Russian (1)
Translation practice with Russian texts using principles and techniques learned in the lecture class. To be taken concurrently with MCLS 30230. Corequisite: MCLS 30230.

**Courses offered only at Regional Campuses.**
Course Descriptions

RUSS

32240 Conversation for Business and Special Purposes: Russian (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: RUSS 32211.

32303 Modern Writers (3)
Reading and analysis of modern Russian plays and stories. Prerequisite: RUSS 22202. This course may be used to satisfy the writing-intensive requirement with approval of major department.

32325 Russian Poetry and Folklore (3)
Reading and analysis of major poems and introduction to folklore. Prerequisite: RUSS 32303. This course may be used to satisfy the writing-intensive requirement with approval of major department.

32350 Russian Prose (3)
Reading and critical analysis of major prose works. Prerequisite: RUSS 32303. This course may be used to satisfy the writing-intensive requirement with approval of major department.

32354 Russian Drama (3)
Reading and critical analysis of major plays. Prerequisite: RUSS 32303. This course may be used to satisfy the writing-intensive requirement with approval of major department.

32421 Russian Civilization (3)
A survey of Russian history and intellectual life. Prerequisite: RUSS 32303. This course may be used to satisfy the writing-intensive requirement with approval of major department.

32501 Russian Literature in English (3)
This course is designed as a survey of major authors, movements and works of 19th- and 20th-century Russian literature in English translation. No knowledge of Russian required. Prerequisite: sophomore standing.

42093 Variable Title Workshop in Russian Language and Literature (1-6)
Workshops individually designed to provide instruction and training in specific areas of Russian studies. S/U grading. Prerequisite: departmental special approval.

42096 Special Topics in Russian Language and Literatures (1-4)
Topic to be announced in Schedule of Classes. Repeated registration permitted when content varies. Prerequisite: senior standing.

42098 Individual Investigation (1-3)
Independent investigation of problems in Russian language or literature. IP grade permissible. Prerequisites: 6 hours of upper-division Russian (RUSS) and special approval of the department chairperson.

42211 Advanced Composition and Conversation (3)
A continuation of RUSS 32211. Prerequisite: RUSS 32211.

42230 Advanced Translation Practice: Russian (3)
Theory and practice course that discusses translation theory and emphasizes Russian-to-English translation of selected texts in business, technology, medicine and law. Prerequisite: RUSS 32231. This course may be used to satisfy the writing-intensive requirement with approval of major department.

42240 Business and Special Texts: Russian (3)
Survey of the typical text types of business in the Russian culture and language. Practice sessions focus on reading and understanding specialized texts and on the translation and composition of selected special texts in Russian. Prerequisite: RUSS 32211.

42351 Survey of Russian and Soviet Literature (4)
Survey of major trends and developments in Russian literature from 1900 through 1917 and that of Soviet Russian literature from 1917 to present. Prerequisite: RUSS 32211.

42399 Research Project in Russian Language and Literature (3)
Thesis or other independent study. IP grade permissible. Prerequisite: 6 credit hours of upper-division Russian (RUSS).

SECONDARY EDUCATION (SEED)

32146 Introduction to Content Area Reading (2)
This course emphasizes the development and adaptation of reading and study strategies applicable to the content areas; techniques for incorporating reading into subject matter instruction. Includes 25 field/clinical hours. Prerequisite: ADED 32142 and admission to advanced study.

32147 Language, Literacy and Learning (3)
Issues central to teaching English: language development in adolescents; reading and composing for varied purposes; relationships between language and learning; multicultural perspectives on the curriculum. Prerequisites: ADED 32142 and advanced standing. Corequisite: SEED 42292. This course may be used to satisfy the writing-intensive requirement with approval of major department.

32196 Individual Project in Secondary Education (2-4)
IP grade permissible. Prerequisite: special approval.

32272 Teaching of Speech (4)
Methods of teaching speech communication, radio-TV-film and theatre in secondary school curricula. This course includes 55 field/clinical hours. Prerequisites: advanced standing and ADED 32142.

32275 Social Studies Education and the Social Sciences (3)
Beginning methods course for teaching social studies. Concentrates on instructional strategies, techniques and content for teaching the social sciences at the secondary level. This course includes 51 field/clinical hours. Prerequisites: ADED 32142 and advanced standing.

40093 Variable Title Workshop in Secondary Education (1-4)
Various topics designed to respond to issues, trends and specialized needs of secondary schools. S/U grading. Prerequisite: special approval.

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 Secondary Education (2-4)
IP grade permissible. Prerequisite: special approval.

42272 Teaching of Computer Science in the Secondary School (4)
Methodology and materials for effective teaching of secondary school computer science and computer use. Prerequisites: CS 43001 and 33101 and ADED 32142 and admission to advanced study.

42275 Teaching Social Studies in Secondary Schools (3)
Advanced methods course for teaching social studies. Focuses on planning and preparation for the student teaching experience. This course includes 51 field/clinical hours. Prerequisite: SEED 32275.

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. Prerequisites: special approval, junior or senior standing.

42295 Special Topics in Secondary Education (2-4)
Specialized offerings in response to emerging or selected program needs in secondary education. Prerequisite: special approval.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
43315 Teaching Literature in the Secondary Schools (3)
Explores the pedagogy of canonical literature, literary theory and approaches to teaching texts in the secondary classroom. Prerequisite: advanced standing.

43325 Multi-Modal Literacies in the Secondary Classroom (3)
Explores the pedagogy of reading and composing with a variety of print and nonprint texts. Focuses on the impact of media culture on adolescent learners. Utilizes new literacies to enhance learning in the content area. Prerequisite: advanced standing.

43335 Teaching Language and Composition (3)
Explores linguistic and rhetorical perspectives on the teaching of composition in secondary schools. Prerequisites: advanced standing, ADED 32142 and MGED 40007 and SEED 43325 and 43515. Corequisite: ADED 42932.

47248 Teaching Critical Thinking (2)
Techniques, procedures and materials for developing skills in application of analysis and thinking process. Prerequisites: ADED 32142 and senior standing.

SOCIOLGY (SOC)

12050 Introduction to Sociology (3)
Scientific approach to understanding social interaction, institutions and organization. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirements.

22100 Sociological Analysis (3)
Fundamental study of sociological analysis designed to provide awareness of theoretical and methodological concepts necessary in developing sociological perspective. Prerequisite: SOC 12050.

22200 Understanding Differences and Inequality (3)
An introduction to the cultural and structural factors creating and sustaining educational, economic and political inequality by race/ethnicity, gender, class and sexual orientation with an emphasis on issues of poverty and immigration. Prerequisite: none.

22210 Interpersonal Relationships and Families (3)
(Cross-listed with HDFS 24011) Exploration of the sociological nature of families across the life span, focusing on structure, diversity and life-course processes, such as dating, mate selection, cohabitation, marriage, parenthood, divorce, remarriage, singlehood, widowhood, parent-child interactions, sexual orientation, inequality and difference. Prerequisite: none.

31092 Practicum in Sociology (1-3)
Individual research experience in sociology. S/U grading; IP grade permissible. Prerequisites: SOC 32210 and junior standing.

32006 Individual Investigation in Sociology (1-3)
Readings and/or research supervised by member of sociology faculty. Prerequisites: SOC 12050 and junior standing and special approval of instructor.

32210 Researching Society (3)
Survey of methods and techniques of research; research design and data gathering instruments; qualitative and quantitative analysis. Prerequisites: SOC 12050 and junior standing.

32220 Data Analysis (3)

32221 Data Analysis Laboratory (1)
Analysis of sociological data utilizing statistical and electronic data processing tools. Corequisite: SOC 32220.

32400 Individual and Society (3)
Foundations of social psychology; process of socialization; development of social and personal identities; small group and collective behavior; theories of deviance. Prerequisite: SOC 12050 and junior standing.

32510 Sociology of Work (3)
Consideration of world of work across time and cultures with special emphasis on American society. Impact of work on individuals and other social institutions. Prerequisites: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

32560 Sociology of Families (3)
Social history of the American family. Examination of how race, ethnicity, sexual orientation, class, gender and age contribute to variation in the experience and structure of family life in the U.S. Prerequisites: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

32585 Sociology of Gays/Lesbians (3)
Examination of sexual identities, societal attitudes and debates, and differences of gender, race, age, and class in gay/lesbian communities, using both social movements and life span perspectives. Prerequisite: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

32569 Minorities in America (3)
Study of such major American minorities as blacks, American Indians, Spanish-speaking Americans and American Jews. Prerequisites: SOC 12050 and junior standing.

32570 Inequality in Societies (3)
Sociological analysis of stratification and inequality in societies, and the social structures that produce and maintain them. Particular emphasis on the intersections of race, class and gender in American society. Prerequisite: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

32610 Birth, Death, and Migration (3)
Determinants and consequences of population change, with emphasis on mortality, fertility and migration. Prerequisites: SOC 12050 and junior standing.

32673 Urban Processes and Life Styles (3)
Examination of emergence, nature and problems of urbanization through analysis of ecology, organization, social psychology of urban life. Prerequisites: SOC 12050 and junior standing.

32762 Deviant Behavior (3)
Overview of classical and contemporary theories and perspectives on the nature, causes and societal management of deviant behavior. Application of theories and perspectives to modern and historical social problems, methods of punishment and policy trends in social control. Prerequisites: SOC 12050 and junior standing.

42010 Death and Dying (3)
Theoretical perspectives and research in human death and dying. Emphasis on applied concerns in medical and helping professions. Topics include social death, death as taboo, medicalization and rationalization of death and dying and disenfranchised grief. Prerequisites: SOC 12050 and junior standing.

42092 Internship in Sociology (3)
Application of sociological knowledge in the work setting. Assist professionals in sites including social services, hospitals, industry and government. Prerequisites: junior standing and sociology (SOC) major and 2.50 GPA and special approval.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
42095 Special Topics in Sociology (3)
(Repeatable for a total of 12 credit hours for majors) Offered irregularly when unusual resources and/or opportunities permit. Topic announced when scheduled. Prerequisites: SOC 12050 and junior standing.

42126 Sociological Theories (3)
An examination of classical, modern and postmodern approaches to social theory. Prerequisites: SOC 12050 and junior standing. This course may be used to satisfy the writing-intensive requirement with approval of major department.

42224 Interpreting Social Data (3)
Emphasis on organizing, analyzing and interpreting actual sociological research data making use of basic descriptive and inferential statistics and computer programs. Prerequisites: SOC 32210 or 32220 and special approval.

42244 Sociology of Changing Gender Roles (3)
An examination of the institutions, institutional linkages and social processes that contribute to change and stability of traditional gender roles and the consequences of changes. Prerequisites: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

42359 Social Movements (3)
Investigation of various movements for social change. Examines the origins, developmental characteristics and the purposes of classic and contemporary movements. Prerequisite: SOC 12050 and junior standing.

42400 Self and Identity (3)
Examines theories and research on the origin and behavioral consequences of identities, self-concept and self-esteem; also examines the relationships between identities and emotions and between self-concept and mental health. Prerequisite: SOC 12050 and junior standing.

42421 Childhood in Society (3)
How socio-historical circumstances shape the perception and experience of childhood as a distinct life stage. The process of childhood socialization in Western societies, particularly in the U.S. An exploration of the distinct role of socializing agents—parents and siblings, school, peers and media. Prerequisites: SOC 12050 and junior standing.

42478 Adolescence in Society (3)
Consideration of the social, cultural and historical forces that shape the experience of this period of the life cycle. Includes examination of gender, class and race differences in adolescence and the significance of youth movements with an emphasis on music as a dominant expression of youth culture. Prerequisites: SOC 12050 and junior standing.

42558 Wealth, Poverty and Power (3)
Sociological examination of economic stratification: focuses on the translation of class into power via politics, education and collective struggle. Prerequisites: SOC 12050 and junior standing.

42561 Sociology of Religion (3)
Social context of religious ideologies and structures with special reference to religion in America. Prerequisites: SOC 12050 and junior standing.

42562 Sociology of Mental Illness (3)
A sociology of mental health and illness; focuses on how social factors influence and are influenced by mental health status; topics include definition and measurement, social distribution, social control of mental illness, societal reaction and media coverage. Prerequisites: SOC 12050 and junior standing.

42563 Sociology of Health and Health Care (3)
Sociological analysis of health and illness behavior; utilization of health care professions; and the organizational, community and societal systems which deal with health and illness. Prerequisites: SOC 12050 and junior standing.

42564 Bureaucratic Organizations (3)
Analysis of structure and functioning of complex organizations in their cultural context. Prerequisites: SOC 12050 and junior standing.

42566 Race and Ethnic Studies (3)
Sociological principles underlying racial and ethnic relations in the United States. Emphasis on social factors of prejudice, discrimination and assimilation affecting all groups. Prerequisites: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

42575 Family Patterns: a World Perspective (3)
Cultural variability with respect to courtship, family relationships, child rearing and other patterns in primitive and literate societies. Prerequisites: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

42577 Sociology of Family Violence (3)
Sociological analysis of theories, research and social policy concerning family violence: child abuse and neglect, spouse abuse, elderly abuse, marital rape, sexual abuse of children. Prerequisites: SOC 12050 and junior standing.

42581 Social Movements (3)
Analysis of structure and functioning of complex organizations in their cultural context. Prerequisites: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

42580 Sociology of Religion and Violence (3)
Examines the particular role of the practitioner unique to gerontology using case study, cross-cultural comparisons and research analysis. Recommended for students with an major or minor in gerontology. Prerequisite: junior standing and special approval.

42593 Sociology of Religion (3)
Examines theories and research on the origin and development of primitive and literate societies. Prerequisite: none.

42623 Cultural Anthropology (3)
Investigation of various cultures using participant observation and interviews with members of the culture. Prerequisites: SOC 12050 and junior standing.

42646 Race Relations (3)
Cultural and institutional analysis of race relations. Prerequisites: SOC 12050 and junior standing.

42681 Sociology of Social Movements (3)
Investigation of various social movements and the structural conditions that lead to their formation and persistence. Prerequisite: SOC 12050 and junior standing.

42870 Interdisciplinary Seminar in Social Gerontology (3)
Examines the particular role of the practitioner unique to gerontology using case study, cross-cultural comparisons and research analysis. Recommended for students with an major or minor in gerontology. Prerequisite: junior standing and special approval.

42879 Aging in Society (3)
Analysis of demographic, sociological and sociopsychological dimensions of aging. Prerequisites: SOC 12050 and junior standing. This course may be used to satisfy the diversity requirement.

**Courses offered only at Regional Campuses.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
SPAN

2802 Intermediate Spanish II (3)
A continuation of the development of listening, speaking, reading and writing skills using a variety of material on the Spanish language in the context of Hispanic cultures and specific areas of study like culture, business, justice, etc. Credit may be given for SPAN 2802 or 2806, but not for both. Prerequisite: SPAN 2801.

2806 Spanish Reading for Comprehension (3)
Further develops skills and techniques for understanding written Spanish; conducted in English. Credit not applicable toward Spanish major or minor. Students may obtain credit in SPAN 2802 or 2806, but not both. Prerequisite: SPAN 2801.

2807 Business Spanish I (3)
Terminology, organization and modes of communication prevalent in modern business world of Spain and Latin America. Presentation of materials followed by practical exercises organized in situational units. Prerequisites: SPAN 2802 and special approval.

2808 Business Spanish II (3)
Terminology, organization and modes of communication prevalent in modern Spanish business world. Presentation of materials is followed by practical exercises organized in situational units. Prerequisite: SPAN 2807.

2809 Field Study (1-6)*
(Repeatable for a total of 6 credit hours) Field study for on-residence and/or field research in a Spanish-speaking community. Prior to registering for this course, students must obtain departmental approval. IP grade permissible. Prerequisite: special approval.

2812 Studies in Grammar (4)
This course provides a comprehensive grammar review for students who need to improve their skills prior to taking advanced language courses. Prerequisite: SPAN 2802.

2811 Spanish Grammar and Composition (3)
This course provides an intensive grammar study and further written practice to help advanced intermediate students express complex ideas in Spanish. Prerequisite: SPAN 2802.

2813 Spanish Reading and Conversation (3)
This course provides reading techniques and develops oral skills to help advanced intermediate students express complex ideas in Spanish. Prerequisite: SPAN 38211.

38215 Spanish Phonetics and Diction (3)
Study of the modern Spanish sound system with special emphasis on pronunciation and intonation. Prerequisite: SPAN 38211.

38231 Translation Practice: Spanish (1)
Translation practice with Spanish texts using principles and techniques learned in the lecture class. Corequisite: MCLS 30230.

38240 Conversation for Business and Special Purposes: Spanish (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 vocabularies in conversations in business and other settings. Prerequisite: SPAN 38213.

38245 Early Spanish Literature (3)
Outline of development, reading of representative works, to 1700. Prerequisite: SPAN 38211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

38311 Recent Spanish Literature (3)
Outline of development, reading of representative works, 1700-present. Prerequisite: SPAN 38211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

38330 Early Spanish Literature (3)
Outline of development, reading of representative works, to 1700. Prerequisite: SPAN 38211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

38331 Recent Spanish Literature (3)
Outline of development, reading of representative works, 1700-present. Prerequisite: SPAN 38211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

38334 Early Spanish-American Literature (3)
Outline of development, reading of representative works, including indigenous literature, 1492-1882. Prerequisite: SPAN 38211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

38335 Recent Spanish-American Literature (3)
Outline of the development of modern Spanish-American literature (1892 to the present). Reading of representative works. Prerequisite: SPAN 38211. This course may be used to satisfy the writing-intensive requirement with approval of major department.

38421 Civilization of Spain (3)
General survey of evolution of Spanish civilization from antiquity to present day. Prerequisite: SPAN 38211.

38424 Culture and Civilization of Latin America (3)
A thematic approach to the study of four or five representative Latin American countries focusing on 19th- and 20th-century Latin American culture and society. Prerequisite: SPAN 38211.

4003 Variable Title Workshop in Spanish (1-6)
Workshops individually designed to provide instruction and training in specific areas of Hispanic studies. SU grading. Prerequisite: departmental special approval.

48095 Selected Topics in Spanish (3)
(Repeatable for a total of 9 credit hours) Topic announced in Schedule of Classes. Prerequisite: 9 credit hours above 20000 level of Spanish (SPAN) courses.

48096 Individual Investigation (1-3)
(Repeatable for a total of 6 credit hours) Allows the advanced, serious student to carry out research/study project on Spanish literature, language or culture. Prior approval of supervising faculty member, department required. IP grade permissible. Prerequisite: special approval.

48215 Advanced Spanish Composition and Conversation (3)
Focuses on description, summary, narration, exposition and argumentation on topics dealing with diverse areas of Hispanic culture as presented through literary and non-fiction texts. Prerequisite: SPAN 38211 and 38213 and one of the following: SPAN 38330 or 38331 or 38334 or 38335.

48216 Contemporary Hispanic Culture (3)
A study of selected sociological, political, cultural or economic issues in the contemporary Hispanic world. Prerequisite: 6 credit hours from 30000-level Spanish (SPAN) courses.

48230 Advanced Translation Practice: Spanish (3)
Theory and practice course that discusses translation theory and emphasizes Spanish-to-English translation of selected texts in business, technology, medicine and law. Prerequisite: SPAN 38231. This course may be used to satisfy the writing-intensive requirement with approval of major department.

48240 Business and Special Texts: Spanish (3)
Survey of the typical text types of business in the Spanish culture and language. Practice sessions focus on reading and understanding specialized texts and on the translation and composition of selected special texts in Spanish. Prerequisite: SPAN 38211.

48340 Medieval Spanish Poetry (3)
Spanish poetry from its origins to 1500. Prerequisites: 6 credit hours of SPAN 38330 and 38331 and 38334 and 38335.

48350 Don Quixote (3)
A penetrating study of Cervantes’ masterpiece. Prerequisites: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

48351 Minor Works of Cervantes (3)
La Nunancia, Entremeses, La Galatea, Novelas ejem- plares. Prerequisites: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
48352  Medieval Spanish Prose (3)
The development of medieval Spanish prose, with special emphasis on La Celestina. Prerequisites: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

48354  Neoclassicism and Romanticism (3)
Survey of neoclassicism and romanticism in Spain. Prerequisite: 9 credit hours of Spanish (SPAN) courses above the SPAN 38211 level.

48356  Golden Age Prose (3)
Study of the development of the various forms of prose fiction during the Spanish Golden Age. Prerequisites: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

48358  Nineteenth-Century Novel (3)
Analysis and critical interpretation of outstanding representatives of 19th-century novel. Prerequisites: SPAN 38421 and 38331.

48360  Twentieth-Century Spanish Drama (3)
Representative works of leading Spanish dramatists of the 20th century. Prerequisites: SPAN 38421 and 38331.

48364  Generation of ’98 and After (3)
Intensive reading of representative works with examination of the history leading to this group. Prerequisites: SPAN 38421 and 38331.

48366  The Novel of the Mexican Revolution (3)
A critical sociocultural and literary examination of selected Mexican novels that explore a variety of responses to the first major 20th-century mass upheaval in Latin America known as the Mexican Revolution. Prerequisites: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

48370  Modernismo in Spanish-America (3)
Ruben Dario and other writers of the modernista movement; works include modernist poetry, short story and essay. Prerequisites: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

48372  Spanish-American Novel I (3)
A cultural and literary analysis of selected major Spanish-American novels written between 1900 and 1950. Prerequisite: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

48373  Spanish American Novel II (3)
A cultural and literary analysis of selected major Spanish-American novels written from 1950 to the present. Prerequisite: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

48374  Modern Spanish American Drama (3)
Analysis of selected plays from various Spanish-American countries. Prerequisites: 6 credit hours from SPAN 38330 and 38331 and 38334 and 38335.

48376  Contemporary Spanish-American Short Story (3)
The development of the Spanish-American short story from 1917 to the present. Prerequisites: 6 credit hours from SPAN 38330 and 38331 and 3834 and 38335.

48378  U.S. Latina/o Writers (3)
The course focuses on a representative selection of literary pieces in Spanish by recent U.S. Latino writers. Develops oral and listening skills in Spanish and strengthens critical thinking on various cultural and literary matters. Prerequisites: SPAN 38211 and 38213 and one of the following—SPAN 38330 or 38331 or 38334 or 38335.

48422  Early Spanish-American Discourse (3)
This course provides a critical analysis of cultural and literary issues on texts dealing with early Colonial Spanish-American expression. Prerequisites: SPAN 38213 and 38334.

48423  Spanish-American Indian Discourse (3)
This course provides a critical analysis of cultural and literary issues in selected excerpts of the Spanish-American Indian expression from pre-Columbian to Colonial times. Prerequisites: SPAN 38213 and 38334.

48423  Spanish-American Indian Discourse (3)
This course provides a critical analysis of cultural and literary issues in selected excerpts of the Spanish-American Indian expression from pre-Columbian to Colonial times. Prerequisites: SPAN 38213 and 38334.

SPECIAL EDUCATION (SPED)

19201  American Sign Language I (4)
(Cross-listed with ASL 19201) An introduction to American Sign Language and deaf culture. Development of beginning visual-receptive ASL skills and introductory expressive skills. Prerequisite: none.

19202  American Sign Language II (4)
(Cross-listed with ASL 19202) A continuation of the introduction to American Sign Language and deaf culture. Continued development of basic visual-receptive ASL skills and expressive skills. Prerequisite: ASL 19201 or SPED 19201.

23000  Introduction to Exceptionalities (3)
Introduction to student exceptionalities, service delivery/placement options and multidisciplinary team process. Focus on identification of characteristics, definition and identification procedures of students with exceptionalities. Fifteen clinical hours. Prerequisite: none. This course may be used to satisfy the diversity requirement.

29020  American Sign Language IV (3)
(Cross-listed with ASL 29020) Development of ASL fluency in expressive and receptive mode to beginning advanced. Continue to increase awareness of deaf cultural values, customs and conversational habits. Prerequisite: ASL 19202 or SPED 19202.

39201  American Sign Language V (3)
(Cross-listed with ASL 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. Prerequisites: ASL 29020 or SPED 29020 and admission to advanced study.

40093  Workshop in Special Education (1-5)
Topics of special interest to students desiring to intensify their knowledge in particular areas. Presenters include Kent State University faculty and other institutions. Offered irregularly. S/U grading; IP grade permissible. Prerequisite: none.

43010  Family and Professional Collaboration (3)
This course provides knowledge and strategies for working with family members of exceptional individuals and members of related professions which provide services to them. Use of collaborative, interdisciplinary and interagency models in special education. Twenty-hour clinical and 10-hour field work. Prerequisites: SPED 23000 and admission to advanced study.

*Course ineligible to be repeated for GPA recalculation.
* Courses offered only at Regional Campuses.
43020 Assessment in Special Education (3)
Use/interpretation normal- and criterion-referenced and informal curriculum-based assessments for students with mild handicapping conditions. Ecological inventories/observation techniques for students with severe conditions. Includes 10-hour field and 20-hour clinical work. Prerequisites: admission to advance study and CI 47501 and 47502 and 47504 and ELED 40126. Corequisite: SPED 43992. Special fee: $60 flat fee—subject to change. This course may be used to satisfy the writing-intensive requirement with approval of major department.

43030 Classroom and Behavior Management I: Theory and Techniques (3)
Theory and techniques associated with establishing, implementing, assessing, and maintaining procedures for modifying classrooms to enhance learning and behavior of children/youth with disabilities. Includes 25 field hours. Prerequisites: SPED 23000 and admission to advanced study. Corequisite: SPED 43992.

43031 Classroom and Behavior Management II: Application and Teaching Social Skills (3)
Application of the theory and techniques introduced in SPED 43030. Uses case-based instruction and field-based experiences to address points of assessment, intervention, adaptation, monitoring and generalizing affective and social behavior. Includes 40 hours of field work. Prerequisites: SPED 43030 and admission to advanced study. Corequisite: SPED 44092 or 44102.

43040 Language and Reading in Special Education (3)
Instructional approaches to teaching reading/communication arts to students with disabilities. Emphasis on adapting instructional techniques, materials, assessments to meet the needs of learners with disabilities. Includes 15-hour clinical and 15-hour field work. Prerequisites: admission to advanced study and ECED 40126 and CI 47504. Corequisite: SPED 44092 or 44102.

43050 Characteristics of Students with Mild/Moderate Intervention Needs (3)
Definitions, causes and characteristics and social and educational implications of learning, developmental and emotional/behavioral disorders of students identified with mild/moderate disabilities. Methods of assessment and interventions; current issues. Ten-hour clinical and 10-hour field work. Prerequisite: SPED 23000.

43051 Characteristics of Students with Moderate/Intensive Intervention Needs (3)
Overview of specific facets and causes of severe disabilities, physical/psychological aspects, family/societal responses, political trends, etiology and medical implications, educational and vocational programming, assessment and treatment planning, assistive technology. Ten-hour clinical and 10-hour field work. Prerequisite: SPED 23000.

43060 Curriculum-Methods Classroom Instruction: Mild/Moderate Intervention (3)
Curriculum development, programming, delivery for students with mild to moderate disabilities. Introduction to transition planning. Emphasis on functional curriculum and adapting instructional techniques, materials, assessment to meet needs. Includes 33 hours of field and clinical work. Corequisite: SPED 44092. Prerequisites: admission to advanced study and CI 47501 and 47502 and 47504 and ELED 40126.

43061 Curriculum-Methods Classroom Instruction: Moderate/Intensive Intervention (3)
Curriculum programming, instructional strategies and related assessment techniques for functional, academic skills using life span model. Emphasis on community-based instruction, authentic assessment and ecological evaluations. Includes 33 hours of field work. Corequisite: SPED 44092. Prerequisites: admission to advanced study and CI 47501 and 47502 and 47504 and ELED 40126.

43062 Curriculum Methods II: Mild/Moderate Intervention (3)
Delivery and adaptation of evidence-based practices for students with mild/moderate disabilities. Emphasis on achievement in general curriculum. Training to mentor other professionals. Prerequisites: SPED 43020 and 43030 and 43060 and admission to advanced study. Corequisites: SPED 43040 and 43992.

43063 Curriculum Methods II: Moderate/Intensive Intervention (3)
Meeting academic, socialization, health, motor skills, communication needs in inclusive setting. Working with paraprofessionals to provide community-based instruction, assessment, observation, record-keeping, IPEs and ITPS, lesson plans. Prerequisites: SPED 43020 and 43030 and 43061. Corequisites: SPED 44192 and 43040 and admission to advanced study.

43070 Planning and Programming for Transitions (3)
Addresses life span community participation and the planning, support development, and services available to accomplish it. Introduction to community agencies and adult services. Ten-hours of clinical and 15-hours of field work. Prerequisites: SPED 43050 or 43051 and admission to advanced study.

43080 Assistive Technology for Students with Disabilities (3)
Examinations of high and low technology assistive devices for students with intensive intervention needs. Analysis of technology needs; selection/development of technology; training/evaluation of technology use by students. Includes 20 hours of clinical work. Prerequisites: SPED 43050 and 43051 and admission to advanced study.

43092 Deaf Residential School Internship (1-3)
(Cross-listed with ASL 49092) Weeklong internship at a residential school for the deaf; 24-hour interaction with deaf students and adults. Students stay on campus. Conduct, interaction, sign language skills, maturity, responsibility and performance is evaluated by staff at the school. S/U grading. Prerequisites: ASL 29202 or SPED 29202; and SPED 43309 and admission to advanced study.

43100 Survey of the Interpreting Profession (3)
Issues and concerns facing educational interpreters; legal mandates and constraints; ethical guidelines and their application to educational environments; roles/responsibilities, including sign interpreting/transliterating, team membership, classroom and building roles and negotiating the educational environment. Prerequisite: none.

43101 Deaf Culture and Community (3)
(Cross-listed with ASL 49101) Exploration of historical events and figures from 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.

43102 Interpreting Processes Deaf/Hard-of-Hearing I (3)
Beginning-level interpreting course addressing voice-to-sign and sign-to-voice processes using simultaneous and consecutive strategies: ASL, SEE Signed English, Total Communication signing. Preschool, primary, elementary, students developmentally delayed through gifted academic levels. Prerequisites: ASL 29202 or SPED 29202; and admission to advanced study.

43103 Interpreting Processes Deaf/Hard-of-Hearing II (3)
Intermediate/advanced level interpreting course addressing voice-to-sign and sign-to-voice processes using simultaneous and consecutive strategies: ASL, SEE Signed English, Total Communication signing. Focus on middle school/high school/postsecondary students developmentally delayed through gifted academic levels. Prerequisites: ASL 39201 or SPED 39201; and SPED 43102 and 43105 and admission to advanced study.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
43104 Advanced Voice-to-Sign Interpreting (3)
Continued advanced-level skill development in voice-to-sign processes using simultaneous and consecutive strategies: Advanced ASL, SEE, Signed English, Total Communication, Dialect, idiom, idio-syncretic language usage and patterns, regional/local variations: age, gender, register variations. Prerequisites: ASL 39202 or SPED 39202; and SPED 43103 and admission to advanced study.

43105 Signed English and Other Systems (3)
(Cross-listed with ASL 49105) Receptive and expressive use of English-based sign language systems; ASL root words, prefix/suffix use, simultaneous speaking and signing. Explanation and demonstration of Cued speed; exploration of the research related to individuals who use Cued speech. Prerequisites: ASL 29202 or SPED 29202; and SPED 43100 and admission to advanced study.

43106 Classroom Setting Interpreting (3)
Issues and challenges of classroom-based educational interpreting. Mainstreaming, inclusion, resource room, and self-contained academic and nonacademic class preparation and interpreting environments. Off-campus practicum four hours each week to observe and assist with classroom interpreting. Prerequisites: ASL 19202 or SPED 19202; and SPED 43100.

43107 Nonclassroom Setting Interpreting (3)
Issues and challenges of nonclassroom-based educational interpreting. Student participation with IEP-designated related services; professional consultations; assessment interpreting; miscellaneous interpreting. Off-campus practicum four hours a week to observe and assist with classroom interpreting. Prerequisites: ASL 19202 or SPED 19202; and SPED 43100.

43108 American Sign Language Linguistics and Usage (3)
(Cross-listed with ASL 49108) Analytical study of American Sign Language syntactic, semantic, morphology, and pragmatics; comparison of spoken languages and ASL using the Stokoe system; impact of educational setting characteristics on linguistic processes. Prerequisites: ASL 29202 or SPED 29202; and SPED 43100 and admission to advanced study.

43109 Cued Speech and Oral Interpreting (3)
Introduction to Cued speech using hand shapes and hand positions to differentiate between homophonous sounds; theoretical background and development history; oral interpreting homophonous sounds, synonym selection processes; positioning, lighting, and related concerns and issues. Prerequisites: ASL 29202 or SPED 29202; and SPED 43100 and admission to advanced study.

43110 Discourse Analysis for Interpreters (3)
Spoken English and ASL usage is studied as they appear in conversational, situational and interpreted contexts. Analysis of discourse and self-analysis of classroom discourse are targeted. Prerequisites: SPED 43100 and 43102 and 43106 and 43107. Corequisite: SPED 43101.

43111 The Professional Interpreter (3)
Covers current trends in the field regarding situational and ethical issues. Demand/control schema and ethics are the focus to prepare students for the national certification test. Prerequisites: SPED 43100 and 43106 and 53100 and 53106.

43192 Practicum in Educational Interpreting (1-3)
(Repeated registration permissible) Field-based practicum experience provides preservice educational interpreters with opportunity to participate with currently practicing master educational interpreters. Students placed in education-based settings. University supervisor and teacher mentor observe and assess student skill. Prerequisites: ASL 29202 or SPED 29202; and SPED 43100 and admission to advanced study.

43309 Introduction to Deaf Studies (3)
Introductory course survey 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. Includes 20 hours of field work. Prerequisite: none. This course may be used to satisfy the writing-intensive requirement with approval of major department.

43310 Language Instruction for Deaf/Hard-of-Hearing Students (3)
Language problems commonly demonstrated by deaf/hard-of-hearing students and the educational assessment and intervention strategies that are used to address them. Prerequisites: SPED 43309 with minimum B (3.0) grade and SPA 34104. Corequisite: SPED 43392 and admission to advanced study.

43311 Instructional Strategies for Deaf/Hard-of-Hearing Students with Special Needs (3)
IEP and transition planning strategies and program content for deaf/hard-of-hearing students w/ADHD, BD, DD, VI, DL, LD, CMI, TBI, chronically health impaired/medically fragile, gifted. Curriculum and lesson development and adaptation for impacted areas. Prerequisite: admission to advanced study. Corequisite: 1 credit hour of SPED 43392.

43312 Literacy Assessment and Intervention for Deaf/Hard-of-Hearing Students (6)
Theoretical overview integrated linguistics curriculum. Reading theories; difficulties for students with significant hearing loss and auditory processing difficulties; instructional planning; materials design; ongoing assessment strategies. Course includes a practicum placement. Prerequisites: SPED 43310 with minimum grade of B (3.0); SPED 19201 and 19202 or ASL 19201 and 19202 both with minimum grade of B (3.0); and CI 47095 or ESED 31023 or ESED 40126; and admission to advanced study. Corequisite: 1 credit hour of SPED 43392. Special fee: $25 flat fee—subject to change.

43316 Preschool Education of the Hearing Impaired (3)
Developing home/clinic training programs for parents and hearing impaired infants (0-3 years). Teaching speech, language, speech reading, use of residual hearing at preschool level. Prerequisite: senior standing.

43324 Curriculum Methods and Materials for Deaf/Hard-of-Hearing Students (3)
Strategies to assess, instruct, evaluate conceptually based lessons on social studies, science and mathematics. Adaptations of existing units to address learning/linguistic needs of deaf/hard-of-hearing. Prerequisite: admission to advanced study. Corequisite: 1 credit hour or SPED 43392.

43329 Nature and Needs of Gifted Children (3)
Personal characteristics, abilities and potentialities of gifted through review of related research. Examination of findings and implications for psycho-educational development. Prerequisites: PSYC 11762 and sophomore standing.

43529 Instructional Processes for Gifted Children (3)

43534 Social and Emotional Components of Giftedness (3)
Affective growth of gifted persons is reviewed through research literature and analysis of case studies. Reviews adjustment problems of gifted youth and adults. Prerequisites: PSYC 11762 and sophomore standing.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
43981 Student Teaching in Special Education (4-9)
Provides opportunity to demonstrate skills in teaching. Students placed in education-based settings; assume teaching responsibilities of students with exceptionalities for 200 clock hours under the supervision of the school-based mentor teacher and the university supervisor. S/U grading; IP grade permissible. Prerequisites: admission to advanced study. Corequisite: SPED 49525.

43991 Seminar in Special Education (1-3)
Undergraduate seminar in special education; varied topics. Prerequisite: admission to advanced study.

43992 Field Experience in Special Education (2-4)
Provides opportunity to observe master teachers and begin working with students. Students are placed in education-based settings and work with a team of professionals to understand techniques for providing services to students with exceptionalities. Five seminar meetings. S/U grading; IP grade permissible. Prerequisite: admission to advanced study. Corequisites: SPED 43031 and 43040 and 43061.

43996 Individual Investigation in Special Education (1-10)
S/U grading; IP grade permissible. Prerequisite: special approval.

44092 Field Experience for Mild/Moderate Intervention Specialist (2-3)
Field assignments in conjunction with mild/moderate coursework. Evaluates students in personal conduct, communication skills, instructional design and methods, and impact on student learning aligned with CEC standards. Prerequisites: SPED 43992 and 43020 and 43060. Corequisites: SPED 43062 and 43040 and admission to advanced study.

44192 Field Experience for Moderate/Intensive Intervention Specialist (2-3)
Field assignments in conjunction with moderate/intensive coursework. Evaluates students in personal conduct, communication skills, instructional design and methods, and impact on student learning aligned with CEC standards. Prerequisites: SPED 43020 and 43061 and 43092 and admission to advanced study. Corequisites: SPED 43040 and 43063.

49525 Inquiry Seminar into Professional Practice (3)
Focus on effective, ethical and responsible implication of professional practice. Provides vehicle to articulate and demonstrate professional competencies, commitment and ethical decision making for providing services to students. Prerequisites: admission to advanced study. Corequisite: SPED 43981.

Note: Field experience includes seminars, participation and evaluation under supervision of experienced personnel.

SPEECH PATHOLOGY AND AUDIOLOGY (SPA)

10001 Auditory Comprehension: Skills and Strategies (2)
Introduction to models and listening and their applicability to college lecture situations. Misconceptions, barriers, self-evaluation concepts, memory techniques, and note-taking strategies are included. Prerequisite: none.

10002 Introduction to Communication Disorders (2)
An introduction to speech-language and audiology. Etiologies and manifestations of disorders of the speech, language and hearing process. Prerequisite: none.

20202 Voice, Articulation and Phonetics (3)
Personal improvement course for the development of voice, articulation and pronunciation through study of structures of speech mechanism with intensive drills and practice. Prerequisite: none.

33101 Hearing Science (3)
Acoustics, psychoacoustics, bioacoustics, anatomy and physiology of the ear. Prerequisite: none.

34102 Applied Phonetics (3)
Basic principles of speech production and phonetic transcriptions of English with the International Phonetic Alphabet; emphasis on General American Dialect. Prerequisite: none.

34103 Anatomy and Physiology of Speech (3)
Functional anatomy and physiology of the respiratory, phonatory, articulatory and neural systems as they are used in speech production by talkers with normal and abnormal speech. Prerequisite: none.

34104 Speech and Language Development (3)
Normal development and linguistic analysis of language systems including phonology, morphology, syntax, semantics and pragmatics. Prerequisites: SPA 34102 or ENG 31001; and special approval.

34105 Phonetic Bases of Speech and Language (3)
Fundamental processes related to production and perception of spoken language, with parallels to writing and reading; particular application to normal and hearing-impaired children and adolescents. For nonmajors only. Prerequisite: none.

34106 Articulatory and Phonological Disorders (3)
Assessment and remediation of disorders of articulation and phonology. Prerequisites: SPA 34102 and 34104.

34107 Language Disorders in Children and Adolescents (3)
Introduction to assessment and intervention procedures associated with language disorders in children and adolescents. Prerequisites: SPA 34104.

40104 Communication Disorders in Children and Adolescence (3)
Orientation to etiologies and remediation of communication disorders found in pediatric and adolescent populations. Prerequisite: Not open to majors in speech pathology and audiology (SPA).

42300 Speech of the Hearing Impaired (3)
Basic principles, variables and techniques for understanding, evaluating and improving expressive communication of hearing impaired individuals. Prerequisites: SPA 33101 and 34102 (speech pathology majors); or 34105 and 43600 (education majors).

43402 Audiometry (3)
Measurement of human hearing by pure-tone and speech audiometry; evaluation of middle ear function by immittance audiometry; screening techniques; pathologies of the conductive and sensorineural systems. Prerequisite: SPA 33101 with a grade of C (2.0) or better and special approval.

43404 Aural Rehabilitation (3)
Basic principles, variables and techniques for understanding, evaluating and improving receptive communication of hearing-impaired individuals. Prerequisites: SPA 33101 and 34102 and 43402 (speech pathology and audiology majors); or 43600 (education of hearing impaired majors).

43492 Clinical Preparation in Audiology (2)
Laboratory exercises and practical experiences in audiometric procedures, test interpretation, counseling and management of the hearing-impaired. Prerequisite: Special approval. Corequisite: SPA 43402.

43506 Special Issues in Audiology (3)
Readings and discussion of classic and current research on the evaluation of hearing disorders. Prerequisite: SPA 43402.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
Course Descriptions

SPA | SPAD

43600 Fundamentals of Educational Audiology (3)
Auditory development and function/dysfunction; auditory assessment and family counseling; selection and fitting of personal and classroom amplification systems; collaboration of professionals in audiology and education; communication approaches according to varying levels of hearing loss; classroom environments conducive to auditory and academic learning. Prerequisite: junior standing.

44096 Independent Study: Speech Pathology and Audiology (2-6)
Readings and/or research on problems approved by the student’s advisor and project director. IP grade permissible. Prerequisite: senior standing and speech pathology and audiology (SPA) major and special approval.

44110 Speech Science (3)
Consideration of physiological and acoustic characteristics of normal speech production and perception with implications for speech and hearing disorders. Prerequisites: SPA 34102 and 34106.

44111 Neural Processes (3)
Anatomy and physiology of the nervous system underlying human neuromotor movements. Topics include: definition and fundamental concepts, afferent and efferent systems, cortical anatomy and function, cranial nerves, theories of brain function and neural maturation and learning. Prerequisite: SPA 34103 or special approval of the instructor.

44112 Age-Related Changes in Communication (3)
Nonpathological age-related changes in speech, language, and voice. Topics include: structural changes in orofacial, laryngeal and respiratory mechanisms; sequelae for speech, language and voice in the elderly; effects of age on swallowing; facilitating conversational interactions with elderly individuals. Prerequisite: none.

44130 Communication Disorders of the Aging (2)
Hearing, speech and language disorders in geriatric population. Symptoms, causes and treatment: normal changes in hearing, language and speech accompanying aging process. Prerequisite: senior standing. Majors: senior standing.

44310 Clinical Procedures (3)
Examination of evaluative and therapeutic procedures used with communicatively impaired children and adults. Prerequisite: SPA 34103 or 34106.

44492 Clinical Preparation in Speech-Language Pathology (2)
Fundamental evaluation and management procedures of individuals with communication disorders, including supervised observation. Corequisite: SPA 44310. This course may be used to satisfy the writing-intensive requirement with approval of major department.

44505 Independent Study: Speech Pathology (3-6)
Readings and/or research on problems approved by the student’s advisor and project director. IP grade permissible. Prerequisites: SPA 44492 and special approval of the instructor.

SPORT ADMINISTRATION (SPAD)

15000 Orientation to Sport Administration (2)
This course is designed to introduce students to the field of sport administration. Students will be made aware of the career options available to them in the sport management profession. All course materials, assignments and class discussions will emphasize both the understanding and application of key concepts across various aspects of the sport industry. Students will also be introduced to the sport administration major curriculum and requirements. Recommend first course in the SPAD program sequences. Prerequisite: none.

15015 Orientation to Professional Golf Management (1)
An overview of opportunities and responsibilities in the golf profession. Emphasis on concepts, techniques and practices of teaching golf skills; understanding the PGA Constitution, rules of golf, tournament golf operations and golf car fleet management. Prerequisite: special approval.

25015 Introduction to Golf Professional Training Program (2)
An overview of the Professional Golfers Association of America’s golf professional training program (GPPT). An in-depth review of the GPPT standards emphasizing PGA level-one checkpoint requirements is provided and includes portfolio development and self-studies. Prerequisite: SPA 15015.

25092 Practicum I in Sport Administration (1-3) *(Repeated registration permissible to a 3-credit-hour maximum) A 105-hour field experience in a sport management setting. S/U grading; IP grade permissible. Prerequisites: SPA 25092 and sport administration (SPAD) major and special approval from instructor.

25192 Practicum in Professional Golf Management I (1) *(Repeated registration permissible to a 3-credit-hour maximum) A cumulative 105-hour on-campus seminar and field experience in a professional golf management setting. Prerequisites: SPA 15015 and 25015 and 25192.

25195 Golf Management II (2)
An in-depth study of the golf swing and teaching methodology. The sciences applied to the golf swing; laws, principles and preferences of a model swing; professional technology for golf teachers; and the importance of directed practice, drills and teaching aids. Prerequisites: SPA 15015 and 25015 and 25192.

35021 Governance in Sport (3)
Issues of governance in amateur and professional sports. Prerequisite: MKTG 25010.

35025 Facility Management (3)
Overview of planning, staffing, marketing and managing sport facilities and complexes. Primary emphasis is on management, personnel and operations. Prerequisite: junior or senior standing.

35092 Practicum II in Sport Administration (1-3) *(Repeated registration permissible to a 3-credit-hour maximum) A 105-hour field experience in a sport management setting. S/U grading; IP grade permissible. Prerequisites: SPA 25092 and sport administration (SPAD) major and special approval from instructor.

35120 Governance in Professional Golf Management II (1)
(Repeated registration permissible to a 3-credit-hour maximum) A cumulative 105-hour field and on-campus seminar class experience in a professional golf management setting. Prerequisites: SPA 15015 and 25015 and 25192 and special approval.

3515 Golf Management II (2)
An in-depth study of the business of golf. Topics include maintaining a high performance work environment and motivating techniques for staff, delegating assignments, management performance problems, merchandise assortment plans, vendor relations, inventory management and merchandise display and promotion. Prerequisites: SPA 15015 and 25015 and 35015.

35192 Practicum in Professional Golf Management II (1) *(Cross-listed with ELS 55022) Students learn the proper planning process that all sport events undergo. Students then apply these concepts in actual events that they develop and hold. Prerequisites: junior or senior standing and MKTG 25010.

35022 Event Planning and Production (3)
Students learn the proper planning process that all sport events undergo. Students then apply these concepts in actual events that they develop and hold. Prerequisites: junior or senior standing and MKTG 25010.

45023 Sport Marketing (3)
Designed around market planning, the course examines how to formulate market ideas, incorporate market research, select segmentation, targeting and positioning strategies, implement sales and promotion strategies and assess control procedures within the sport and entertainment industry. Prerequisite: MKTG 25010.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
45024  Sport in Global Perspective (3)
Students critically analyze how sport relates to general features of globalization and understand the connection between global and local politics, including ethnic, religious, gender, environmental and sociospatial politics. The underlying assumption is that sport is part of a growing network of global interdependencies that bind human beings together. Prerequisite: senior standing.

45026  Sport and the Media (3)
An introduction to current scholarship and issues concerning sport and the media, including analysis of media representations with attention to gender, race, sexuality and disability; an examination of the structure of sports journalism and production; and a general analysis of the role of mediated sport in culture. As such, the roles of institutions, producers, texts and audiences and their relationships to each other are examined. Prerequisite: junior or senior standing.

45027  Public Relations and Promotion in Sport (3)
Issues in public relations and promotion of sport, including advertising, crisis management, sales promotion and atmospherics. Prerequisite: MKTG 25010.

45030  Sport Enterprise (3)
The capstone for sport administration majors. Designed around business planning for sport, the course examines how to formulate business ideas, select a legal form of organization, locate financing sources, assess the market, develop a human resource management system and establish budget control. Prerequisites: senior standing and special approval. This course may be used to satisfy the writing-intensive requirement with approval of major department.

45091  Seminar for Internship Preparation (1)
Prepares students for the internship experience in sport administration. Students must successfully complete this course before registering for internship. Prerequisites: senior standing and special approval.

45192  Internship in Professional Golf Management (2)
(Repeated registration permitted) Supervised full-time experience providing knowledge of overall agency operation in approved sport administration, professional golf management setting. 100 contact hours per credit hour with seminar interactive requirement. Prerequisites: SPAD 15015 and 25015 and 25192 and special approval.

45071  Summer Design Studio (1-4)
SUMMER VISUAL COMMUNICATION DESIGN (SVCD)
45071 Summer Design Studio (1-4) (Repeatable for a total of 16 credit hours) Summer course offerings investigating specialized areas of graphic design, illustration or photography taught primarily by guest faculty. Prerequisite: special approval.

TECHNOLOGY (TECH)
Aeronautics
Industrial Technology
Technology Education

10001  Information Technology (3)
Introduction to the operation and use of computer systems in technology-related applications. Laboratory assignments include the use of microcomputers for solving technical problems. Prerequisite: none. Special fee: $25 flat fee—subject to change.

11071  Woods Technology I (3)
Provides experience in fundamental hand and machine processes in wood fabrication. Projects are designed, planned and constructed by the student according to curricular needs and interests. Prerequisite: none. Special fee: $100 flat fee—subject to change.

11083  Technical Drawing and Sketching (3)
State-of-the-art experiences and fundamentals of sketching, lettering, blueprint reading, orthographic projection, dimensioning, sectioning, single and double auxiliaries, isometric, oblique, perspectives and fasteners. Prerequisite: none.

13580  Engineering Graphics I (3)
Technique of engineering drawing, lettering, instrument use, freehand drawing, orthogonal projection, sections, single and double auxiliaries, dimensioning, screw threads, charts and graphs. Prerequisite: none. Special fee: $25 flat fee—subject to change.

15000  Introduction to Aeronautics (3)
Introduction to aeronautical and aerospace technology including historical development, underlying science and technical applications. The past, present and future social-economic, technical and political impacts of aviation are also explored. Prerequisite: none.

15100  Women and Minorities in Aviation (3)
Course examines the roles and contributions of women and minorities in aviation and the historical, social, technological and political impact they have had on aviation and the aerospace industry. Prerequisite: none.

15250  FAA Orientation (3)
Introduction to the Federal Aviation Administration with particular emphasis on its role and impact on air traffic management and the National Airspace System (NAS). Course addresses the unique aspects and requirements of federal employment, as well as federal regulations affecting flight operations and the FAA’s associated supporting agencies. Prerequisite: TECH 15000.

15740  Elements of Flight Theory (5)
Basic instruction in all areas which gives the student aeronautical knowledge required for a private pilot certificate. IP grade permissible. Corequisite: TECH 15741.

15741  Private Pilot Flight (3)
Flight course designed to fulfill FAA requirements for private pilot certificate. IP grade permissible. Corequisites: TECH 15000 and 2.50 GPA. Corequisite: TECH 15740. Special fee: $7,000 flat fee—subject to change.

15742  Private Pilot Helicopter Flight (3)
Flight course designed to fulfill Federal Aviation Administration (FAA) requirements for the private pilot helicopter certificate. Prerequisites: TECH 15740 and cumulative GPA of 2.50. Corequisite: TECH 35101.

15743  Private Pilot Helicopter Flight Add-On (2)
Flight course designed to fulfill Federal Aviation Administration (FAA) requirements for the private pilot helicopter certificate. Prerequisites: TECH 15742 and cumulative GPA of 2.0. Corequisite: TECH 35101.

20001  Energy/Power (3)
Study of basic thermodynamic laws and how they apply to the conversion and transfer of heat energy into useful power. Prerequisite: TECH 21021. Special fee: $25 flat fee—subject to change.

20002  Materials and Processes (3)
Study and practice addressing the nature of basic manufacturing materials and the processes by which they are converted into manufactured products. Includes laboratory experience. Prerequisite: none. Special fee: $80 flat fee—subject to change.

20002  Materials and Processes (3)
Study and practice addressing the nature of basic manufacturing materials and the processes by which they are converted into manufactured products. Includes laboratory experience. Prerequisite: none. Special fee: $80 flat fee—subject to change.

**Notes:**
*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
20004 Fundamentals of Electronic Circuits (4)
Introduction to electronic circuits consisting of resistors, capacitors and inductors. Calculation of voltages and currents in the circuits for the case of constant and time varying currents. Prerequisite: MATH 11010 and MATH 11022. Corequisite: MATH 12002. Special fee: $25 flat fee—subject to change.

21021 Survey of Electricity and Electronics (4)
Survey of DC and AC circuits, electronic devices, amplifiers, sensors and transducers, digital circuits, motors, generators and controls. Includes laboratory. Not intended for industrial technology majors. Prerequisite: MATH 12001 or corequisite MATH 11022. Special fee: $25 flat fee—subject to change.

21046 Graphic Communications Technology I (3)
An orientation to layout, composition and press operations as applied to the graphic communications processes of lithography, screen and relief printing. Prerequisite: none. Special fee: $25 flat fee—subject to change.

21071 Construction Materials, Methods and Techniques (3)
Covers current construction materials and their applications in commercial and residential construction buildings. Prerequisite: none. Special fee: $90 flat fee—subject to change.

22200 Construction Document Reading (3)
An introductory course to construction document reading. Provides a basic working knowledge of construction mathematics, specifications, material submittal process, building codes and material take-off. Prerequisite: none. Special fee: $45 flat fee—subject to change.

22085 Special Topics in Technology (1-4)*
(Repeated registration permissible) Various special topics to be announced in the Schedule of Classes, offering current topics in technology-based areas of study. IP grade permissible. Prerequisite: special approval.

22100 Training Topics in Technology (1-4)*
(Repeated registration permissible) Specialized instruction oriented primarily to the theoretical base and application of current technology developed by experts in the specific technology. This course is repeatable as the specific topics will vary. Prerequisite: special approval.

23200 Electronic Circuit Fabrication Laboratory (1)
Covers the common methods and items used in electronics to fabricate, repair and test electronic component connections and circuits. Topics include electrical safety, printed circuit board design and fabrication, soldering, wiring characteristics, cabling, wire connectors, splices, wire wrapping, crimping, network cable fabrication, fabrication and repair of fiber optic cables and connectors, and integrated circuit fabrication. Prerequisite: TECH 20004 or 21021. Special fee: $50 flat fee—subject to change.

23224 Electrical Circuits II (3)

23581 Computer-Aided Engineering Graphics (3)
Study of working drawings, descriptive geometry, geometrical tolerancing, structural/weldments, cams, gears, piping, and considerable time with the Hewlett Packard 900 CAD system. Prerequisites: TECH 10001 and 13580. Special fee: $30 flat fee—subject to change.

25250 Elements of Aviation Weather (3)
Aviation weather provides an up-to-date and expanding course for professional pilots and others whose interest in weather is primarily in its application to flight. Prerequisite: TECH 15000.

25360 Fundamentals of Air Traffic Control (2)
Introduction to the National Airspace System (NAS) and the orders, manuals and procedures associated with the purposes and directives of the air traffic control environment to include purposes and responsibilities of the ATC system. Prerequisite: TECH 15250.

25361 Fundamentals of Air Traffic Control Laboratory (1)
Introductory laboratory course on air traffic management and the National Airspace System, the orders, manuals and procedures associated with the purposes and directives of the air traffic control environment. To include purposes and responsibilities of the ATC system. Prerequisite: TECH 15250. Corequisite: TECH 25350.

25743 Commercial Pilot Flight I (2)
Advanced flight course providing flight instruction for the commercial pilot. Primary emphasis is on cockpit resource management, advanced navigational practices and basic instrument instruction. Prerequisites: TECH 15740 and 15741. Special fee: $7,500 flat fee—subject to change.

29000 Cultural Dynamics of Technology (3)
Study of technology and its influence in society. Prerequisite: none. This course may be used to satisfy the writing-intensive requirement with approval of major department.

29010 Engineering and Professional Ethics (3)
Applications of codes of ethics in the engineering and technology professions reflective of social and moral responsibilities to the public and accountability in engineering practice. Prerequisite: none.

31015 Construction Technology (3)
Laboratory, lecture and field experience which relate to the construction industry and its relationship to our society. Prerequisite: TECH 13580 or 11083. Special fee: $100 flat fee—subject to change.

31016 Manufacturing Technology (2)
Classroom, laboratory and field experiences involving the major aspects of a manufacturing enterprise, including product design, production, financing and marketing. Prerequisites: TECH 10001 and 13580 and 20002.

31020 Automated Manufacturing (3)
Theory and operation of computer controlled machine tools, robots and processes. Prerequisite: none.

31023 Construction Surveying (3)
Covers the study of surveying including field work with equipment such as transit, level and tape. Prerequisite: TECH 22200. Special fee: $75 flat fee—subject to change.

31032 Power Technology (3)
Principles of energy conversion and power application. Overview of basic heat engines, machines and transmission devices. Alternative energy systems and conservation techniques. Prerequisites: TECH 20004 and 20001.

31043 Principles of Concrete Construction (3)
An introductory course on the use of concrete in the construction industry. Students will gain a basic understanding of the strength and behavior of reinforced concrete members and simple reinforced concrete structural systems. Prerequisite: TECH 21071. Special fee: $75 flat fee—subject to change.

31044 Construction Occupational Safety and Health (3)
Focuses on making the theories and principles of construction safety and health practical and useful in a real world setting. Prerequisite: none.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
31047  Graphic Communications Technology II (2)  
Advanced course in graphic communications processes with emphasis on procedures involved in special effect lithographic techniques, multiple imposition, pin registration and production operations. Prerequisite: TECH 21046.

31055  Plastics Technology I (1)  
Design and development of ideas in plastics; study of the plastic industry, occupations, materials, products and processes. Prerequisite: junior or senior standing.

31065  Cast Metals (3)  
Principles and processes of metal casting with a focus on current industrial practices. Includes laboratory experience with nonferrous metals and industrial tours. Prerequisite: TECH 20002. Special fee: $80 flat fee—subject to change.

31067  Machining Technology I (3)  
Lecture and laboratory experiences in basic machine tool principles and processes. Prerequisite: none.

31071  Woods Technology II (2)  
Emphasis on basic woodworking machinery processes, fundamental construction and materials. Project design and development. Prerequisite: TECH 11071. Special fee: $100 flat fee—subject to change.

31087  Design for Technology (3)  
Design as creative process. Individual and group experiences in problem solving. Relevance to art, industry and education. Prerequisite: TECH 13580 23581 and 31016. Special fee: $20 flat fee—subject to change.

32002  Materials and Processes II (3)  
Advanced study and practice in materials and processes. Emphasis will be upon developing skills and knowledge in producing a product and conducting problem-solving activities. Prerequisite: TECH 20002. Special fee: $80 flat fee—subject to change.

32100  Fundamentals of Radiation Technology (3)  
Study of the generation and application of radiation to everyday and industrial applications. Includes sound, RF and microwaves, light and ionizing radiation. Prerequisite: MATH 11022 or 12001 or 19002.

32101  Polymers I (4)  
Description of various plastics, outline of polymer chemistry, identification tests, polymerization, molecular growth and molecular weight, extrusion, injection molding, thermoforming, compression molding and related topics. Prerequisite: none.

32102  Polymers II (3)  
Comprehensive review of resin systems and fiber reinforcement for use in production of FRP products; fabrication procedures; comparative properties. Prerequisite: TECH 32101.

32105  Construction Jobsite Management (3)  
Course concentrates on the procedures and methods that are used by the construction contractor during the construction and post-construction phases of a project. Prerequisite: none.

32106  PC/Network Engineering and Troubleshooting (3)  
A course covering the service, maintenance, upgrade and optimization of personal computers. Specifications, 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 or TECH 33010.

32107  Computer Hardware (3)  
Introduction to the hardware, architecture and operation of the personal computer and associated devices. Topics include personal computer architecture and operation fundamentals, basic hardware, data busses and ports, hardware component packaging, auxiliary hardware components, computer assembly, basic hardware installation, configuration and troubleshooting. Prerequisite: junior standing. Special fee: $50 flat fee—subject to change.

32110  Programmable Logic Controllers (3)  
An introduction to programmable logic controllers (PLCs) covering hardware, ladder logic programming, networking and communications. Programming timers, counters and sequencers and an introduction to human machine interfaces (HMIs). Prerequisites: TECH 10001 and 21021.

32116  Hydraulics-Pneumatics (3)  
Fluid properties, hydraulic design, viscosity, hydraulic components, pumps, systems and circuits, maintenance and safety, pneumatics, air systems control and design. Prerequisites: MATH 11022 or 12001; and PHY 13001 or 23101. Special fee: $40 flat fee—subject to change.

32120  Electronic Devices (4)  
Introduction to electronic non-linear devices including diodes, transistors, optoelectronic devices and operational amplifiers. Use and application of these devices in different types of applications like rectifiers, amplifiers and linear integrated circuits. Prerequisite: TECH 20004. Corequisite: TECH 23200. Special fee: $25 flat fee—subject to change.

32122  Digital Design and Applications (3)  
Introduction to digital electronics systems and applications. Topics include number systems, logic gates, switching algebra, combinational and sequential logic circuit analysis and minimization techniques. Includes laboratory. Prerequisite: TECH 20004 or 21021. Special fee: $30 flat fee—subject to change.

32123  Electronic Communication (3)  
Electronic circuits and systems with emphasis on their application in communications systems. Prerequisite: TECH 33220.

32124  Industrial Control Systems (3)  
The application of electronics to the control of industrial machines and processes. Includes laboratory. Prerequisite: TECH 33220.

32363  Metallurgy and Materials Science (3)  
Scientific study of modern manufacturing materials (metals, plastics and ceramics) and the laboratory test methods used to determine their manufacturing specifications and properties. Prerequisite: junior standing.

32380  Engineering Graphics for Electronics (3)  
Use of CAD techniques in the generation of electronic circuit schematics and related drawings. Includes the design and implementation of printed circuit boards. Includes laboratory. Prerequisites: TECH 13580 and 33220.

33056  Cooperative Education-Professional Development (1-6)  
(Repeatable for a total of 6 credit hours) Supervised work-study experience in approved business or industrial environment relevant to the student’s major. IP grade permissible. Prerequisites: sophomore standing and 2.25 GPA and special approval. This course may be used to satisfy the writing-intensive requirement with approval of major department.

33095  Special Topics: Applied Science and Technology (1-3)  
(Repeated registration permitted) Special topics of immediate interest in applied science and technology. Prerequisite: junior standing and special approval.

33111  Strength of Materials (3)  
An analytical study of the relaxation between the external forces applied to elastic materials and the resulting deformations and stresses. Prerequisite: PHY 13001.

33220  Electronic Devices (4)  
Introduction to electronic non-linear devices including diodes, transistors, optoelectronic devices and operational amplifiers. Use and application of these devices in different types of applications like rectifiers, amplifiers and linear integrated circuits. Prerequisite: TECH 20004. Corequisite: TECH 23200. Special fee: $25 flat fee—subject to change.

33222  Digital Design and Applications (3)  
Introduction to digital electronics systems and applications. Topics include number systems, logic gates, switching algebra, combinational and sequential logic circuit analysis and minimization techniques. Includes laboratory. Prerequisite: TECH 20004 or 21021. Special fee: $30 flat fee—subject to change.

33223  Electronic Communication (3)  
Electronic circuits and systems with emphasis on their application in communications systems. Prerequisite: TECH 33220.

33225  Industrial Control Systems (3)  
The application of electronics to the control of industrial machines and processes. Includes laboratory. Prerequisite: TECH 33220.

33263  Metallurgy and Materials Science (3)  
Scientific study of modern manufacturing materials (metals, plastics and ceramics) and the laboratory test methods used to determine their manufacturing specifications and properties. Prerequisite: junior standing.

33350  Engineering Graphics for Electronics (3)  
Use of CAD techniques in the generation of electronic circuit schematics and related drawings. Includes the design and implementation of printed circuit boards. Includes laboratory. Prerequisites: TECH 13580 and 33220.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>33700</td>
<td>Quality Techniques (4)</td>
<td>Process variability, process monitoring, statistical methods using control charts for variables and attributes, acceptance sampling plans, process capability, process adjustment, design of experiments and process improvement. Prerequisite: special approval.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>33870</td>
<td>Facility design and Material Handling (3)</td>
<td>Provides students with a fundamental understanding of how layout affects the flow through a system. Both qualitative and quantitative tools are presented for a complete approach to facility design and material handling. Prerequisite: junior standing. Special fee: $25 flat fee—subject to change.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>34000</td>
<td>Computer Animation II (3)</td>
<td>Continuation of the study and technology applications of computer animation with emphasis on camera usage and the production of a comprehensive animation project involving the Animation Thought Process (ATP). Prerequisite: CADT 22004.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>34001</td>
<td>Computer Animation III (3)</td>
<td>Continued study of practical technology applications of computer animation with emphasis on scripting code writing, systems line variables and fluent realism factors within the ATP. Prerequisite: TECH 34000.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>34002</td>
<td>Advanced CAD II (3)</td>
<td>Continuation of CADT 22000 with an emphasis on the use of a Parametric-based CAD software (PROENGINEER) for the design and modeling of industrial products. Prerequisites: MRT 12001 and CADT 22000; or TECH 23581. Special fee: $40 flat fee—subject to change.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>34003</td>
<td>Animation Theory (3)</td>
<td>A comprehensive course on the history and current status and future of animation featuring the masters of animation, their landmark achievements and the processes they unveiled. Claymation, Stop-Motion, Anime, Commercial and Forensic animations will be covered. Prerequisite: none.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>34004</td>
<td>Technology of Light, Color, Design and Layout (2)</td>
<td>A course dealing with the study of the technical principles and applications of light, color, design and layout to the production of computer animation for engineering materials and products. Prerequisite: CADT 22004.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35001</td>
<td>Aircraft Fabrication (3)</td>
<td>The study and laboratory practice of government-approved procedures used in the fabrication, repair and testing of certificated aircraft. Prerequisites: TECH 15000 and MATH 12001 and PHY 13001.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35020</td>
<td>Aircraft Propulsion Systems (3)</td>
<td>A study of reciprocating engines, aircraft propellers and turbine engines. Course investigates basic theory, component function, performance characteristics and propulsion-related systems. Prerequisites: TECH 15000 and MATH 12001; and PHY 13001 and 13002 or PHY 23101 and 23102.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35040</td>
<td>Aircraft Systems I (3)</td>
<td>Introduction to various aircraft systems including electrical, mechanical and hydraulic systems and their performance as applied to aircraft. Prerequisites: TECH 15000 and MATH 12001; and PHY 13001 and 13002 or PHY 23101 and 23102.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35095</td>
<td>Special Topics in Aeronautics (1-3)</td>
<td>Specialized offerings of interest in response to emerging or needed curricular needs in aeronautics. Topics will be announced in the Schedule of Classes. Repeat registration permitted. Prerequisite: aeronautics (AERN) major and sophomore standing.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35101</td>
<td>Helicopter Theory and Operation (3)</td>
<td>Study of the helicopter flight and operations that includes rotor system dynamics, control functions, major components, operation and performance. Prerequisite: TECH 15000 and 25250. Special fee: $240 flat fee—subject to change.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35150</td>
<td>Aircraft Structures (3)</td>
<td>Aircraft structural design investigations dealing with theory and applications in aviation. Prerequisites: TECH 15000 and MATH 12001 and PHY 13001 and 13002. Special fee: $50 flat fee—subject to change.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35340</td>
<td>Airport Management (3)</td>
<td>Introduction to the many functions that are involved in the operation and management of an airport. Includes an analysis of the development of the airport - airway system, airport legislation, airport planning and airport operations. Prerequisite: TECH 15000.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35341</td>
<td>Air Transportation Systems (3)</td>
<td>Descriptive course in airline operations as seen from the air carrier’s business perspective. Emphasis is on business practices and techniques unique to aviation. Prerequisite: TECH 15000.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35342</td>
<td>Air Traffic Control (3)</td>
<td>Study of the fundamental concepts of air traffic control and airspace management in the National Airspace System (NAS), with an emphasis on the interaction between terminal and en route traffic control functions. Prerequisites: TECH 15000 and 15740 and 25250.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35343</td>
<td>En Route Air Traffic Control (2)</td>
<td>Introduction to en route operations of air traffic control. To include an understanding of en route charts, radio procedures and use of weather forecasting products. Prerequisites: TECH 25250 and 25350 and 35342.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35344</td>
<td>En Route Air Traffic Control Laboratory (1)</td>
<td>Laboratory course with real-world, scenario-based introduction to en route operations of air traffic control. To include an understanding of en route charts, radio procedures and the use of weather forecasting products. Prerequisites: TECH 25250 and 25350 and 35342. Corequisite: TECH 35343.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35644</td>
<td>Instrument Flight Theory (3)</td>
<td>Comprehensive instruction presenting theoretical and practical aspects of instrument and weather flying. Prerequisites: TECH 15740 and 25250. Corequisite: TECH 35645. Special fee: $5 flat fee—subject to change.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35645</td>
<td>Instrument Pilot Flight (2)</td>
<td>Comprehensive flight course for the professional pilot candidate to meet the requirements of the FAA instrument rating. Prerequisites: TECH 25250 and 25743. Corequisite: TECH 35644. Special fee: $8,500 flat fee—subject to change.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35647</td>
<td>Commercial Pilot Flight II (2)</td>
<td>Comprehensive flight course for the professional pilot candidate with emphasis on commercial flight maneuvers and instrument flight review. IP grade permissible. Prerequisites: TECH 35644 and 35645. Special fee: $6,000 flat fee, Fixed Wing—subject to change.</td>
<td>$25 flat fee—subject to change.</td>
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<tr>
<td>35746</td>
<td>Commercial Pilot Theory (2)</td>
<td>Comprehensive instruction covering all areas necessary to exercise the privileges of a commercial pilot. Prerequisite: TECH 35644 and 35645.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35747</td>
<td>Commercial Pilot Flight III (2)</td>
<td>Comprehensive flight course for the professional pilot candidate to meet the requirements of the FAA commercial pilot certificate. Major emphasis on complex aircraft operations. Prerequisites: TECH 35644 and 35645. Corequisite: TECH 35746. Pre/corequisite: TECH 35647. Special fee: $6,000 flat fee—subject to change.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
<tr>
<td>35748</td>
<td>Commercial Pilot Helicopter Flight Add-On (2)</td>
<td>Flight course designed to fulfill Federal Aviation Administration (FAA) requirements for the commercial pilot helicopter certificate. Prerequisites: cumulative GPA of 2.0; and TECH 35747; and TECH 15742 or 15743.</td>
<td>$25 flat fee—subject to change.</td>
</tr>
</tbody>
</table>

*Course ineligible to be repeated for GPA recalculation.

**Courses offered only at Regional Campuses.
36008  Ergonomics in Computer Systems (3) **
This course introduces students to ergonomics, usability design, assessment methods and safety for the development of computer systems. Prerequisites: ENG 20002 and PSYC 11762 and junior standing.

36095  Special Topics in Computer Technology (2 or 3) **
Various special courses will be announced in the Schedule of Classes under this course number with different section numbers. Prerequisite: special approval.

36110  Principles of Fraud Examination (3)
Study of occupational fraud and abuse; its detection and prevention within the realm of an enterprise. Prerequisite: ACTT 21000.

36120  Ethical Issues Relating to Fraud Examination (3)
Understanding ethical dilemmas, issues and professionalism relating to fraud examination. Prerequisite: TECH 36110.

36301  Advanced C++ Programming (4)
Laboratory course using C++: classes and data abstraction, stream I/O, inheritance, standard template library, Microsoft foundation classes, system programming concepts using Unified Modeling Language. Prerequisite: COMT 20001.

36310  Multimedia Development Tools (3)
Course focuses on advanced technologies for Web development, including DHTML, plug-ins, etc. Students will learn to create more interactive and dynamic Web sites. Prerequisites: COMT 21011 and 21036 or COMT faculty special approval.

36311  Advanced Java Programming (4)
Laboratory course using Java abstract data types and objects, object-oriented/event-driven design, file organization and access and systems programming concepts. Prerequisite: COMT 20011.

36318  Survey of Information Security, Internet Fraud and Computer Forensics (3)
This lecture-based, survey course provides a non-technical introduction to contemporary issues in information security, internet fraud and computer forensics. Prerequisites: ENG 21011 and junior standing.

36320  Computer Forensics (3)
This lecture/laboratory course emphasizes hands-on skills in incident response, forensic preparation, and data recovery and analysis. Prerequisites: COMT 21002.

36330  Local Area Network Security Fundamentals (3)
This lecture/laboratory course will examine the primary issues involved in securing resources in a LAN including threat assessment, countermeasures, best practices, security protocols, cryptography and management-related issues. Prerequisites: COMT 21002.

36336  Web Scripting II (3)
This course will focus more in-depth on selected scripting topics needed to create interactive and dynamic Web sites. Prerequisite: COMT 21036 or COMT faculty special approval.

36350  Programming Office Productivity Applications (3)
Introduces the use of Visual Basic for Applications as a tool to create customized programs that automate repetitive and/or complex tasks performed using office suite applications. Prerequisites: COMT 11002 and 21010.

36401  Applications of Technology Management Software (3)
Combination of computer and business applications for managing technology within an organization. Focus is on using emerging computer software programs for the enhancement of decision making. Course is two hours lecture, one hour lab. Prerequisite: BMRT 11000 and COMT 12000 and MATH 11011 or full-time applied-business faculty special approval.

36410  Security for Business Students (3)
Concepts and principles of security and safety in industrial and commercial settings. Focus on executive oversight of corporate security functions. Includes risk analysis, security surveys, emergency preparedness and security policies and procedures. Prerequisite: junior standing.

36415  Customer Service Technology (3)
Analysis and definition of customer satisfaction with an emphasis on quality customer service that includes technique for assessing company service efforts and developing customer satisfaction programs. Prerequisites: junior standing and BMRT 11000.

36420  Physical Security (3)
Elements of design, technology and procedures that deter, delay, detect and defeat criminal activity. Deployment and optional countermeasures. Budgeting based on risk analysis. Prerequisite: junior standing.

36430  Security Management (3)
Principles of security and safety in private business and institutions. Emphasis on proprietary department and security of those departments. Focus on need for proprietary security organization, internal controls, external threats and electronic devices. Examination of departmental policies and procedures. Prerequisite: junior standing.

36440  Security Investigation (3)
Addresses future of private security, conducting interviews and dealing with testimonial evidence. Following leads, collecting evidence, preserving crime scenes, use of investigative tools, surveillance techniques and report writing. Prerequisite: junior standing.

36595  Special Topics in Microsoft Certification (3)
(Repeated registration permissible) Special topics courses which prepare students for Microsoft professional certifications. Prerequisite: special approval. Special fee: $400 flat fee—subject to change.

41001  Methods in Technology Education (3)
Methods of teaching curriculum development and evaluation which are unique to the profession of technology education. Prerequisite: special approval. This course may be used to satisfy the writing-intensive requirement with approval of major department.

41002  Organization in Technology Education (3)
Principles and practices involved in housing, equipping, organizing, maintaining and operating industrial arts/technology education courses. Prerequisite: junior standing.

41040  Residential Construction Estimating (3)
An introduction to residential estimating processes and the steps involved in accurately preparing a cost estimate. Prerequisite: TECH 22200. Special fee: $45 flat fee—subject to change.

41041  Commercial Construction Estimating (3)
Course covers the concepts and techniques used for commercial construction estimating. Prerequisite: TECH 22200. Special fee: $45 flat fee—subject to change.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
41051 Foundations and Contemporary Theories of Technology Education (3)
This course explores the history, contemporary theories, and practices of technology education. Includ- ed are site visits to exemplary technology education programs. Prerequisite: none.

41052 Technology Education for Elementary School (3)
Using discussion, laboratory experience and field experiences, this course explores technology edu- cation as it relates to all content areas of the K-12 curriculum. Prerequisite: none. Special fee: $20 flat fee—subject to change.

41055 Industrial Practice (1-8)
(Repeatable for a total of 8 credit hours) Practical experience in industry of cooperative work-study nature. Prerequisite: junior standing.

41056, 41196 Individual Investigation in Technology Education (1-4)
(Repeatable for a total of 4 hours) Individual investiga- tion course. IP grade permissible. Prerequisites: special approval by department.

42100 Training Topics in Technology (1-4)
(Repeatable registration permissible) Specialized instructional unit oriented toward the application of current technology concepts. S/U grading, IP grade permissible. Prerequisite: special approval.

42105 Construction Contracts (3)
An introductory course on construction contracts and how they are used in the construction industry. Prerequisite: junior or senior standing. Special fee: $45 flat fee—subject to change.

42107 Construction Scheduling (3)
Covers the traditional theory on planning, schedul- ing and controlling construction projects. Current industry computer applications for scheduling will be utilized. Prerequisite: TECH 32105. Special fee: $45 flat fee—subject to change.

42200 Radiation Sources and Processing (3)
Description of the radiation sources used in radia- tion technology and the study of the effects of electrons and gamma rays on materials of technological interest. Experiments deal with the effects of radia- tion in different materials. Prerequisites: PHY 13002 or 12202; and MATH 12002 or 19002; and TECH 32100 and 33363.

42300 Radiation Detection Technology (3)
Familiarizes students with basic types of instrumen- tation used for the detection and measurement of ionizing radiation, including operation and applica- tions. Lectures supplemented with laboratory exer- cises. Prerequisites: TECH 21021 or 23224 or EERT 1201; and TECH 42200.

42400 Radiation Dosimetry and Safety (3)
Basic concepts of dosimetry and its units as applied to radiation technology, including theory of dosi- meter response. Safety principles and practices followed in radiation environments, including terminology, policies and procedures to minimize exposure to radiation. Prerequisite: TECH 42200.

42500 Laboratory in Radiation and Materials (3)
Laboratory investigation into the effects of radiation on materials, including dosimeters. Methods employed include spectroscopy, thermal analysis, optical microscopy and mechanical properties. Pre- requisites: TECH 42300 and 42400.

43000 Advanced Animation Development (2)
This project-based course is a continuation of TECH 34001 with emphasis on preproduction considera- tion, character design, advanced modeling tools, texturing and post-animation production. Prerequi- site: TECH 34001.

43001 Technology of Media and Film Production (2)
A course dealing with the technical and business aspects of pre- and postproduction planning for multimedia, video or film projects. Covers a system- atic approach to content organization and develop- ment, scripting, visualization proposal development contracts, budgets and legal issues. Prerequisites: TECH 34001 and 34004.

43002 Graphics Design Technology (3)
A course of study in the technology of creating knowledge and effects using computer-graphics concepts to create photo-realistic composite images and to restore and enhance a wide array of images. Prerequisite: CADT 22004.

43003 Multimedia and Virtual Reality II (2)
A continuation of CADT 22005. The course deals with technical advanced concepts in multimedia and virtual reality in product development using Lingo to craft a production that fits any delivery environment. Prerequisite: CADT 22005.

43004 UNIX Scripting with Applications (2)
A course in the use of UNIX scripting for animation and multimedia development. Prerequisites: COMT 21095 and TECH 43001.

43026 Microprocessor Systems (4)
Introduction to the architecture, operation and applications of an advanced microprocessor, focusing on assembly language programming and inter- facing of standard programmable peripherals. Prerequisites: TECH 33222 and 46320. Special fee: $30 flat fee—subject to change.

43060 Management of Technology (3)
Subjects covered in this course are case studies of innovative companies, elements of an innovation process, review of major problem solving methods, technical opportunity analysis, technical planning, technological forecasting, concept development and elements of patents. A project is included that uti- lizes TRIZ software and innovation model elements. Prerequisite: junior or senior standing. Special fee: $85 flat fee—subject to change.

43080 Industrial and Environmental Safety (3)
Examines the Occupational Safety and Health Act and fundamentals of industrial safety programs. Prerequisite: none.

43096 Individual Investigation in Applied Science and Technology (1-3)
Work-study of an individual nature on a topic in a field of applied science and technology. IP grade permissible. Prerequisites: junior standing and spe- cial approval.

43132 Manufacturing Engineering Project (2)
Problem selected by students and instructors to develop students in desired specialty or strengthen students in lesser field or prepare students for spe- cific employment. IP grade permissible. Prerequi- site: special approval of instructor.

43220 Electrical Machinery (3)
Principles of operation and application of motors, generators, transformers and other magnetic devices; electrical power generation, distribution and use. Prerequisite: TECH 23224.
43221  Digital Control Systems and Instrumentation (4)
Focuses on applications of instrumentation and control systems using computers and microcontrollers including sensors, transducers, instruments, data acquisition boards, software programs, signal conditioning and transmission methods. Prerequisites: TECH 43226 and MATH 12003 and PHY 23102. Corequisite: TECH 35223. Special fee: $20 flat fee—subject to change.

43550  Computer-Aided Manufacturing (3)
The application of computers to the preparation of machine tool control programs. Prerequisite: TECH 10001 and 20002. Special fee: $60 flat fee—subject to change.

43580  Computer-Aided Machine Design (3)
Application of the principles of mechanics and strength of materials, with computer assistance, to the design and selection of machine components under both static and dynamic loads. Prerequisites: TECH 10001 and 33111 and 34002 and MATH 12002 and PHY 13001.

43700  Computer Integrated Manufacturing (3)
Study of the computer-integrated manufacturing system as it relates to product design, estimating, inventory, machining and assembly, quality control and distribution. Prerequisite: TECH 43550. Special fee: $60 flat fee—subject to change.

43800  Applied Engineering Technology Seminar (2)
An individual or group project involving the solution of a problem through the application of technology. Prerequisite: technology (TECH) major and senior standing. Special fee: $40 flat fee—subject to change.

45030  Aircraft Systems II (3)
Application and performance of various electrical, mechanical, hydraulic and computer systems as applied to aircraft. Prerequisites: TECH 35040. This course may be used to satisfy the writing-intensive requirement with approval of major department.

45092  Aeronautical Internship/Cooperative Education (1-2)
(Repeatable for a total of 6 credit hours) Work experience in aerospace/aviation industry or related activity, laboratory or student professional organization. Prerequisite: special approval.

45096  Individual Investigation in Aeronautics (1-3)
(Repeatable for a total of 6 credit hours) Work-study of an individual nature on a topic relating to professional aviation. IP grade permissible. Prerequisites: sophomore standing and special approval.

45121  Advanced Aerospace Propulsion (3)
A study of gas turbine and rocket engines as aerospace propulsion systems. Includes laboratory experience related to component function and system performance. Prerequisites: aerospace technology (AERN) major and TECH 35020.

45130  Physiology and Human Factors of Flight (3)
A study of the interaction of the human body with flight and those human factors that affect flight operations. Prerequisite: TECH 15000.

45150  Applied Flight Dynamics I (3)
An applied aircraft flight dynamics course that demonstrates aircraft, engine and propeller performance with the overall flight performance and stability of the typical light airplane. Includes flight testing laboratory participation. Prerequisites: MATH 11012 or 12002; and PHY 13001 and 13002 or PHY 23101 and 23102; and TECH 15000. Special fee: $30 flat fee—subject to change.

45151  Applied Flight Dynamics II (3)
An applied flight dynamics course that demonstrates aircraft performance, dynamics, operating characteristics and propulsion of both light airplanes and high speed, high altitude aircraft. Includes flight testing laboratory participation. IP grades permissible. Prerequisites: TECH 35020 and 45150 and PHY 35622. Special fee: $20 flat fee—subject to change.

45250  Aviation Law and Safety (3)
Study of federal, state and local laws that impact aviation. Defines major causes of aircraft accidents. Emphasis on safety and prevention of violations. Includes actual case studies. Prerequisite: TECH 15000.

45291  Aerospace Senior Seminar (1)
Seminar on selected topics relating to problems, issues and conditions of employment within aviation. S/U grading only. Prerequisite: aeronautics (AERN) and senior standing. Special fee: $25 flat fee—subject to change.

45320  Air Traffic Control II (2)
Advanced study of the concepts of air traffic control and airspace management in the National Airspace System (NAS), with an emphasis on tower and terminal operations. Prerequisite: TECH 35342. Corequisite: TECH 45321.

45321  Air Traffic Control II Laboratory (1)
Simulator-based laboratory that includes air traffic control experiences that integrate tower and terminal control procedures. Prerequisite: TECH 35342. Corequisite: TECH 45320.

45340  Aircraft Maintenance (3)
Fundamentals of aircraft maintenance and resolving maintenance problems on the flight line. Prerequisites: aerospace (AERN) major and senior standing and special approval.

45343  En Route Air Traffic Control II (2)
Advanced course on en route air traffic operations with emphasis on current and emerging practices in the National Airspace System (NAS). Course explores emerging paradigms in the Next Generation (NextGen) air traffic system. Prerequisite: TECH 35342. Corequisite: TECH 45343.

45344  En Route Air Traffic Control II Laboratory (1)
Simulator-based advanced practical course on en route air traffic operations, with emphasis on current and emerging practices in the National Airspace System (NAS). Course explores emerging paradigms in the Next Generation (NextGen) air traffic system. Prerequisite: TECH 35342. Corequisite: TECH 46343.

45349  Systems Maintenance and Reliability (5)
Combines theories of systems and operations with practical experience to meet FAA standards for an airframe and powerplant license. 300 hours shop experience. Prerequisite: TECH 45340.

45350  Avionics (3)
A study of aviation electronic systems in flight vehicles that pertain to communication, navigation and air traffic control systems. Prerequisites: PHY 13001 and 13002 or 23101 and 23102; and TECH 15000 and 21021.

45648  Theory of Flight Instruction (2)
Detailed fundamentals of teaching flight and ground instruction and the analysis of flight techniques, to meet requirements of FAR’s Part 61.185 (a). Prerequisites: TECH 35746 and 35747. Corequisite: TECH 45649.

45649  Flight Instructor/Airplanes (2)
Flight course with emphasis on instructing techniques in aircraft from right seat. Includes student evaluation techniques to meet FAR requirements for CFI, IP grade permissible. Prerequisites: TECH 35746 and 35747. Corequisite: TECH 45648. Special fee: $5,800 flat fee, Fixed Wing—subject to change.

45651  Flight Instructor—Instruments (2)
Flight course with emphasis on flight instructing techniques involved with instrument flight and ATC procedures. Student evaluations included. IP grade permissible. Prerequisites: TECH 45648 and 45649. Special fee: $3,170 flat fee, Fixed Wing—subject to change.
45653  Multi-Engine Pilot Flight (1)
The course provides the required ground and flight instruction necessary to qualify students for the multi-engine rating from the FAA. IP grade permissible. Prerequisite: TECH 35747. Special fee: $4,200 flat fee—subject to change.

45655  Advanced Multi-Engine Pilot Flight (1)
Ground flight instruction for proficiency and required hours in preparation for multi-engine instruction. IP grade permissible. Prerequisite: TECH 45653. Special fee: $2,850 flat fee—subject to change.

45657  Multi-Engine Flight Instructor (1)
This course provides the necessary ground and flight instruction to professionally qualify students for the multi-engine instructor rating by the FAA. IP grade permissible. Prerequisites: TECH 45655 and 45649. Special fee: $3,000 flat fee—subject to change.

45659  Basic Aerobatic Flight (1)
Consists of 15 hours of ground school and 15 hours of flight training reviewing commercial maneuvers and introducing basic aerobatic maneuvers and related classroom theory. Prerequisites: 2.25 GPA and TECH 25645 and special approval. Special fee: $728 flat fee—subject to change.

45700  Aircraft Design (4)
An in-depth study of the design of a fixed-wing aircraft for a specific mission: weight estimates; wing planform, airfoil and propulsion selection; airframe configuration and layout design; performance analysis; and overall systems integration. Prerequisites: PHY 13001 and 13002 or 23101 and 23102; and TECH 15000 and 21021. Prerequisites: TECH 45030 and 45350 and 45150. Special fee: $50 flat fee—subject to change.

45710  Turbine Engine Theory and Operation (2)
Laboratory. A turboprop flight simulator is utilized to provide instruction and demonstration of the operating characteristics and procedures associated with turbine turboprop engines. Prerequisite: TECH 35020. Precorequisites: TECH 45710. Special fee: $120 flat fee—subject to change.

45720  Crew Resource Management (2)
An in-depth study of the common principles of aviation Crew Resource Management (CRM) and human factors as utilized by air transport flight crews. IP grade permissible. Prerequisites: TECH 45130.

45721  Crew Resource Management Laboratory (1)
Flight simulator-based laboratory that includes flight simulator experiences that integrate CRM and LOFT in a multicrew environment. IP grade permissible. Prerequisites: TECH 45130. Prerequisite/corequisite: TECH 45720. Special fee: $30 flat fee—subject to change.

45730  Applied Transport Category Aircraft Systems (3)
Course examines various systems in use on air transport aircraft. The course emphasis is on the principles, operation and limitations of complex, integrated systems found in modern aircraft. Prerequisites: TECH 35020 and 35040 and 45630.

45740  Flight Management and Electronic Display Systems (3)
Course examines various advanced avionics systems used on air transport type aircraft. The course emphasis is on the principles, operation and limitations of integrated avionics related to the "glass cockpit" found on modern aircraft. Prerequisites: TECH 35040 and 45030 and 45350.

45791  Aviation Security and Policy Seminar (3)
Examines policies, practices, procedures and regulatory provisions developed to create and enhance security in civil aviation with a special emphasis on airlines, airports, airspace and agencies responsible for civil aviation security. Prerequisites: TECH 35340 and 35341 and 35342 and 45250. This course may be used to satisfy the writing-intensive requirement with approval of major department.

45820  Applications of Artificial Intelligence Products (3)
Examines AI techniques that can be used to enhance, replace or help build applications packages. Topics include expert systems, natural language interfaces. Prerequisite: COMT 21004 or MATH 43105.

45821  Web Database Integration (3)
Laboratory course focused on integrating databases in Web sites. Current topics include use of object-oriented technology, structured query language and large-scale database engines. Prerequisites: COMT 21005 and 21036.

45830  Visual Basic Programming in Engineering Technology (3)
This course will cover the concepts of object-oriented, event-driven programming with hands-on application of those concepts to solve engineering-related problems, utilizing the current version of Visual Basic. Prerequisites: TECH 10001 and MATH 11011 and PHY 13001 and special approval.

46170  Case Studies in Fraud Examination (3)
Application of principles of fraud examination, detection and evaluation of recommended action plans to specific fraud cases. Prerequisites: TECH 36110 and 36318.

46191  Seminar in Fraud Examination (3)
Capstone course for students studying fraud examination and its related areas. Students will be required to research, analyze and present current fraud issues. Prerequisite: TECH 46170 and special approval.

46205  Special Topics in Applied Business (2-3)
(Repeated registration permissible) Specialized advance instruction oriented primarily to applied business topics. Topics will vary and will be announced as scheduled. Prerequisite: special approval of full-time technology faculty or of professor teaching the course.

46308  Developing Desktop Applications (3)
Course focuses on designing and implementing desktop applications. Topics include use of component objects, online help, advanced debugging and package deployment. Prerequisite: COMT 21005 or COMT faculty special approval.

46309  Developing Distributed Applications (3)
Course focuses on interface design and establishment of transaction-based client/server database applications using distributed objects, server object components, SQL and Web technologies. Prerequisite: TECH 46308 or COMT special approval.

46310  Technology of Operating Systems (3)
Lab-oriented course covering installation, configuration, tuning and communication among state-of-the-art desktop operating systems, using available system tools, utilities and files. Prerequisites: ENG 20002 or ITAP 26638 and COMT 21002; or full-time COMT faculty special approval.

46311 Technology of Networking (3)
Advanced topics of enterprise network management, including DNS/WINS/IP addressing, routing basics, subnet masking, firewalls; storage redundancy techniques; and general tuning/optimizing/troubleshooting/recovery strategies. Prerequisites: ENG 20002 or ITAP 26638; and COMT 21002; or full-time COMT faculty special approval.

46321 Web Database Integration (3)
Laboratory course focused on integrating databases in Web sites. Current topics include use of object-oriented technology, structured query language and large-scale database engines. Prerequisites: COMT 21005 and 21036.

46330 Visual Basic Programming in Engineering Technology (3)
This course will cover the concepts of object-oriented, event-driven programming with hands-on application of those concepts to solve engineering-related problems, utilizing the current version of Visual Basic. Prerequisites: TECH 10001 and MATH 11011 and PHY 13001 and special approval.

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46331  Local Area Network Security and Firewalls (3)
This lecture/laboratory course will examine the primary issues involved in defining and configuring a local area network defense perimeter including LAN security analysis, implementing firewalls and intrusion detection systems. Prerequisite: TECH 36330.

46340  Database Design and Implementation (3)
Explores the role and design of databases in organizations, with emphasis on the technologies used in their implementation. Emphasis on SQL. Prerequisites: COMT 21005 and 21010.

46409  Strategic Management of Technology and Innovation (3)
An examination using case studies and readings of the management of technology and innovation through perspectives at the product line, business unit and corporate levels. Prerequisite: BMRT 11009 or MIS 2416S; and sophomore standing.

46410  Crisis and Disaster Management Planning (3)
Addresses planning process for mitigation and recovery strategies for natural and man-made crises and disasters. Includes risk assessment, incident management and planning evaluation. Prerequisite: junior standing.

46418  Labor Studies in Technology (3)
This course will include the history of the labor movement, interrelationships of labor with business and industry, labor law, contemporary labor problems that emphasizes how unions are organized, contracts, arbitration and management issues. Prerequisite: junior standing.

46420  Legal Issues in Security (3)
Survey of laws applicable to security risks including torts, labor, employment, criminal and constitutional issues. Prerequisite: junior standing.

46525  Inquiry into Professional Practice (3)
Seminar during student teaching to explore issues and techniques appropriate to teaching technology education. Corequisite: TECH 46031.

11000  The Art of the Theatre (3)
Using the life-centered nature of theatre as a medium of analysis, this course is designed to develop critically engaged audience members who are aware of the impact, significance and historical relevance of the interconnection between culture and theatre performance. Prerequisite: none. This course may be used to satisfy the Liberal Education Requirements (LER) and diversity requirement.

11303  The Art of Acting (3)
General introduction to acting: the actor's instrument, sensory awareness, personal and group response, objectives and tactics. Basic scene work. Prerequisite: special approval.

11522  Introductory Lighting (3)
An introduction to the art of lighting design, historical and technical perspectives. Emphasis on principles of design within a collaborative process. Two lecture hours plus two laboratory hours per week. Prerequisite: special approval.

11524  Introductory Costuming (3)
Principles, theories and basic skills of costume design and technology. Emphasis on aesthetics, the design process, fabric, construction techniques and craft materials. Two lecture hours plus two laboratory hours per week. Prerequisite: special approval. Special fee: $10 flat fee—subject to change.

11622  Introductory Scenery (3)
Principles, theories and basic skills of scenic design and technology. Emphasis on design elements, process of applied construction skills. Two lecture hours plus two laboratory hours per week. Prerequisite: special approval. Special fee: $15 flat fee—subject to change.

20106  Makeup for Stage and Screen (3)
Study of stage, TV and photographic makeup techniques and materials. Four lecture-demonstration-laboratory hours per week; special projects as assigned. Prerequisite: special approval. Special fee: $45 flat fee—subject to change.

21017  Oral Interpretation (2)
Theory and practice in art of interpreting literature orally; selection of material, literary analysis and solo performance techniques. Three lecture-laboratory hours per week. Prerequisite: THEA 11340 and special approval.

21085  Special Topics in Theatre (1-3)
(Repeatable registration permitted). Offered irregularly when unusual resources permit a topic different from existing courses. Topic will be announced when scheduled. Prerequisite: special approval.

21111  Script Analysis (3)
Principles, theories and techniques of play script analysis for theatrical production. Prerequisite: THEA 11000.

21303  Acting Process (3)
Fundamentals of naturalistic acting and interaction; development of spontaneity, believability and a sense of truth; game playing and basic stage technique. Prerequisites: THEA 11303 or 21306 and special approval.

21306  Musical Theatre Performance I (3)*
(Repeatable for up to 12 credit hours) Performance-oriented class that will focus on techniques and styles of performance in musical theatre and cabaret from Gilbert and Sullivan to present. Prerequisite: musical theatre (THMT) major and special approval.

21501  Sophomore Portfolio Review (1)
Preparation and review of a portfolio of work, judged by the design/technology faculty at the beginning of the spring semester. Student must pass to remain in the B.F.A. design/technology program. S/U grading. Prerequisites: sophomore standing and BFA design/technology (THDT) major and at least two of the following: THEA 11522 and 11524 and 11622.

21521  Theatrical Drafting (3)
Drafting techniques for all design/technology students. Includes plans, elevations, sections, detailed drawings, light plots. Prerequisite: THEA 11622 and special approval. Special fee: $35 flat fee—subject to change.

21621  Scene Painting (3)
Techniques of scene painting; emphasis on a variety of techniques through practical projects. Prerequisite: THEA 11622 and special approval. Special fee: $130 flat fee—subject to change.

21700  Movement I (3)
Beginning exploration in movement for the actor: body awareness, relaxation, alignment and physical conditioning. The basic study of space, energy, time, level, direction and range. Prerequisites: THEA 11303 and special approval.

21800  Voice I (3)
Breathing, physical alignment, sound and text explorations designed to build relaxed, free and fully connected voice production for the actor. Prerequisite: THEA 11303 and special approval.

21892  Entertainment Arts and Technology Internship I (3)*
(Repeatable up to 10 credit hours) Intensive professional experience in aspects of entertainment arts and technologies. Prerequisite: sophomore standing and special approval.

22092  Practicum I: Design/Tech (3)*
(Repeatable for a total of 99 credit hours) Practical experience in theatre production under faculty supervision. S/U grading; IP grade permissible. Available for lower-division students only. Required of all theatre majors. Prerequisite: freshman or sophomore only and special approval.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
22192 Practicum I: Performance (3)*
(Repeatable for a total of 99 credit hours) Practical experience in theatre performance under faculty supervision. S/U grading; IP grade permissible. Available for lower-division students only. Required of all theatre majors. Prerequisite: freshman or sophomore only and special approval.

22292 Practicum I: Theatre Management (3)*
(Repeatable for a total of 12 credit hours) Practical experience in theatre management under faculty supervision. Prerequisite: freshman or sophomore only.

31112 History of Theatre and Drama I (3)
Theatre history and drama in Europe from antiquity through the Renaissance. Prerequisites: freshmen or sophomores only and special approval.

31113 History of Theatre and Drama II (3)
Theatre history and drama in Europe and the United States from 1660 to 1900. Prerequisite: THEA 31112 and special approval.

31114 History of Theatre and Drama III (3)
Theatre history and drama in Europe and the United States from 1900 to the present. Prerequisites: THEA 31112 and 31113 and special approval.

31303 Character and Scene Study I (3)
The development of character in the realistic scene. Prerequisites: THEA 21303 and special approval.

31304 Character and Scene Study II (3)
Further character and scene exploration; spontaneity and creative choice making. Prerequisites: THEA 31303 and special approval.

31401 Directing (3)
Theoretical and practical work in the process of play direction: the director's mission; play analysis and design collaboration; the rehearsal process. Prerequisites: THEA 11303 and 21111 and special approval.

31501 Junior Portfolio Review (1)
Review of a portfolio of theatre and related work, and a review of the student's academic progress and coursework judged by the design/technology faculty at the beginning of the spring semester. Student must pass to remain in the B.F.A. design/technology program. S/U grading. Prerequisites: junior standing and B.F.A. design/technology (THDT) major and special approval.

31522 Lighting Design (3)
Exploration of the tools of the lighting designer applied to design choices; frequent paper design projects. Prerequisite: THEA 11522 and special approval. Special fee: $30 flat fee—subject to change.

31524 Costume Design (3)
Theory and practice of costume design. Emphasis on play text analysis, formation of concepts, use of design elements and principles, period styles. Prerequisite: THEA 11524 and special approval. Special fee: $55 flat fee—subject to change.

31525 Costume Technology (3)
Basic patterning and construction techniques used in theatrical costuming; emphasis on flat and draped patterning. Prerequisite: THEA 11524 and special approval. Special fee: $45 flat fee—subject to change.

31560 Scenic Technology (3)
Basic history, theory and application of theatrical practice in scenery, properties and electrics. Three lecture hours per week and laboratory arranged. Prerequisites: THEA 11822 and 21521 and special approval. Special fee: $60 flat fee—subject to change.

31622 Scene Design (3)
Theory and practice of scene design. Emphasis on script analysis, formation of concepts, use of design elements and principles in period styles and genres. Prerequisite: THEA 11622 and special approval. Special fee: $50 flat fee—subject to change.

31701 Movement II (3)
Continue movement work and physical conditioning focusing on the qualities of characterization with masks. Application of text to physical characterizations. Prerequisites: THEA 21303 and 21700 and special approval. Special fee: $10 flat fee—subject to change.

31801 Voice II (3)
Continuation of Voice I. Explorations involve various texts and incorporation of voice principles at a more detailed level. Prerequisites: THEA 21901 and 21800 and special approval.

41017 Reader's Theatre (2)
Theory and practice of group interpretation through the medium of Readers Theatre; selection, adaptation and performance techniques. Three lecture-laboratory hours per week. Prerequisite: THEA 21017.
41133  Theatre and Drama in America I (3)  
History of theatre and drama in America from the beginning to 1900. Prerequisites: THEA 31112 and 31113 and special approval of instructor required.

41134  Theatre and Drama in America II (3)  
The history of theatre and drama in America from 1900 to the present. Prerequisites: THEA 31112 and 31113 and special approval of instructor.

41191  Variable Content Seminar: Theatre  
History / Literature / Theory (3)  
Seminar in theatre history and literature providing an in-depth focus on selected topics such as: African-American theatre, women in theatre, politics and theatre, theatre in a multicultural society, costume history on stage/screen. Prerequisite: THEA 31112.

41303  Styles of Acting I (3)  
Characterization and the demands of theatrical style in comedy. Imaginative exploration, physical commitment, and the creation of a comic truth in Greek and Roman, Commedia, Moliere and others. Prerequisites: THEA 31303.

41304  Styles of Acting II (3)  
Continued exploration of theatrical style and period. Elizabethan and Jacobean theatre with particular emphasis on Shakespearean performance. Prerequisites: THEA 41303.

41305  Professional Aspects: Performance (3)  
A study of the practical demands and requirements of a professional acting career with particular emphasis on audition skills. Also covered: pictures and résumés, making rounds, professional unions, casting directors, agents and managers, the job market and career prospects. Prerequisites: junior standing.

41306  Professional Aspects: Design and Technology (3)  
A study of the practical demands and requirements of a professional career in design and technology, including portfolio development, résumés, unions, job market, financial matters and career prospects. Use of computers as a resource and tool emphasized. Prerequisite: junior standing. Special fee: $24 flat fee—subject to change.

41307  Musical Theatre Performance II (3)  
(Repeatable for a total of 6 credit hours) Advanced work in musical theatre performance techniques for junior and senior level students. Course content includes selecting appropriate musical theatre audition material and developing contrasting selections from the musical theatre repertoire. Preparation for musical theatre auditions is included. Prerequisite: THEA 21306 and special approval.

41309  Senior Project (2)  
An individual or group performance project developed with the acting faculty. Prerequisites: THEA 41304 and special approval.

41401  Advanced Directing (3)  
Advanced work in directing for the theatre. Topics include the director as creative/interpretive artist and the director and the actor; students direct individual projects. Prerequisites: THEA 11303 and 31401 and special approval.

41501  Senior Portfolio Review (1)  
Review of a portfolio of theatre and related work, and a review of the student’s academic progress, coursework and professional potential judged by the design/technology faculty at the end of the fall semester. Student must pass to remain eligible for the B.F.A. design/technology degree. S/U grading. Prerequisites: senior standing and B.F.A. design/technology (THDT) major and special approval.

41521  Advanced Lighting Technology (3)  
Advanced study of the technologies used in lighting designs; instrument design, optics, dimmer and control systems, projection techniques and special effects. Prerequisite: THEA 11522. Special fee: $30 flat fee—subject to change.

41522  Design Studio: Lighting (3)  
Advanced study of lighting design, emphasizing artistic style and concept through a variety of design problems. Prerequisite: THEA 31522 and special approval. Special fee: $30 flat fee—subject to change.

41523  Sound Design and Technology I (3)  
Sound design for the theatre, sound production, and sound reinforcement techniques. Introduction to electronic equipment: mixing consoles, amplifiers, speakers. Prerequisite: special approval.

41524  Design Studio: Costume (3)  
Advanced study in costume design. Genres and styles in the context of performance spaces with an emphasis on research, practical considerations of costume production and communication between designer/shop personnel and designer/director. Prerequisite: THEA 31525 and special approval. Special fee: $45 flat fee—subject to change.

41525  Props and Crafts (3)  
Examination of the processes related to the creation and procurement of scenic and costume props. Prerequisites: THEA 31525 and 31622. Special fee: $80 flat fee—subject to change.

41527  Sound Design and Technology II (3)  
Studies in sound design, sound production and reinforcement for live performance. Advanced software applications will be explored. Prerequisites: THEA 41523 and special approval.

41528  Theatre Sound Reinforcement (3)  
Studies in the theories and practice of audio mixing in support of live vocal and musical performance. Topics include wired and wireless microphones and real-time digital processing of audio. Prerequisites: THEA 41523 and special approval.

41529  Advanced Wig and Makeup Techniques — Stage and Screen (3)  
Advanced study of the process of designing and executing wigs and makeup with an emphasis on standards in the profession. Some prosthetic work required. Prerequisite: junior standing. Special fee: $80 flat fee—subject to change.

41530  Automated Stage Lighting Programming (3)  
Studies in the application of automated lighting techniques to live performance emphasizing artistic style and concept through a range of programming problems. Prerequisite: junior standing and special approval.

41560  Theatre Fabrication Technology (3)  
History of technical production practice, materials theory and application in scenic construction technology. Prerequisites: THEA 11622 and 21521 and special approval. Special fee: $80 flat fee—subject to change.

41620  History of Period Styles for Theatre Designers (3)  
A survey of visual styles as related to historical and contemporary culture from antiquity through the 20th century with an emphasis on its application to theatrical design. Prerequisite: one of THEA 31522 or 31524 or 31622.

41621  Presentation Media (3)  
Advanced process techniques in rendering, model building and design presentation for the scenic, costume and lighting designer in traditional and new media. Prerequisites: junior standing and THEA 11522 and 11524 and 11622 and 21521. Special fee: $45 flat fee—subject to change.

41622  Design Studio: Scenery (3)  
Advanced study in scenic design. Explores genres, styles and performance spaces, including practical considerations. Prerequisite: THEA 31622 and special approval. Special fee: $50 flat fee—subject to change.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
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41623 Television Production: Lighting (3)
Studies in the process and application of designing lighting for studio and event-based television production. Prerequisites: THEA 11522 and special approval.

41701 Advanced Movement I (3)
Development of advanced movement skills and the actor's instrument. Emphasizes the elements of time, weight, focus and flow. Prerequisites: THEA 31701 and special approval.

41726 Theatre Management (3)
Principles and practices of managing theatrical-producing organizations. Problems of finance, personnel, policy, program building and public relations. Production participation as assigned. Prerequisite: junior standing and special approval.

41736 Production and Stage Management (3)
Detailed investigation of the methodology used in stage managing a professional theatrical production including paperwork, rehearsals and calling a show. Prerequisite: special approval.

41801 Advanced Voice/Speech I (3)
The use of exercise and specific text work to explore centering as it relates to the vocal, physical and emotional process of the actor. Focus on extremes of emotional sounds and the removal of barriers and nonuseful vocal habits/speech patterns. Incorporation of personal vocal/physical warm-up into actor's process. Prerequisites: THEA 31801 and special approval.

41892 Entertainment Arts and Technology Internship II (5)
(Repeatable up to 10 credit hours) Intensive advanced professional experience in aspects of entertainment arts and technologies. Prerequisite: junior standing and special approval.

41902 Theatre Production Internship I (1-6)
(Repeatable for a total of 12 credit hours) Intensive advanced training in practical aspects of production. Periodic seminars, laboratory sessions and performance in a theatre company. S/U grading; IP grade permissible. Prerequisites: junior standing and special approval.

42092 Practicum II: Design/Tech (3)
(Repeatable for a total of 99 credit hours) Advanced practical experience in theatre production under faculty supervision. S/U grading; IP grade permissible. Available for upper-division students only. Required of all theatre majors. Prerequisite: junior or senior standing and special approval.

UNDERGRADUATE STUDIES (US)

10002 Adult Student Orientation (1)
This course focuses on balancing adult roles and responsibilities with college demands. Students will sharpen learning skills and study strategies while making connections with other adult students at Kent State. S/U grading. Prerequisite: none.

10003 Reading Strategies for College Success (3)
Development of reading strategies necessary for successful completion of college coursework. Emphasis on improving reading comprehension. Hours do not count toward graduation. Prerequisite: Compass reading score of 0-55.

10006 Study Strategies for College Success (3)
Development and application of content-area reading and study strategies for successful completion of college coursework. Emphasis on application of study strategies. Hours do not count toward graduation. Prerequisite: special approval. Corequisite: PSYC 11782 or SOC 12050 or HIST 12070 or PHY 11030.

10095 Special Topics in Undergraduate Studies (1-3)*
This program, administered by the dean, is intended to encourage interdisciplinary study, to cover areas not treated adequately in traditional coursework and to make available promptly the new and significant experience of the faculty. Prerequisite: none.

10097 First Year Experience FlashPoint (1-3)*
Assists students in making a successful transition to the university through intellectually engaging, high-interest content. Required of all entering first year students. S/U grading. Prerequisite: none.

10098 Variable Title Workshop in Undergraduate Studies (1-3)*
(Repeatable registration permitted) Workshop focused on variable topics. Prerequisite: none.

20193 Variable Title Workshop in Undergraduate Studies (1-3)*
(Repeated registration permitted) Workshop focused on variable topics. Prerequisite: none.

20201 Student Instructor Training (2)
This course prepares student instructors to pair with a faculty member to teach First Year Experience FLASH Point (US 10097). This course meets for 12 weeks, including three Saturdays. S/U grading. Prerequisite: US 10001.

20202 New Student Instructor Seminar (2)
This course is required for all student instructors who are teaching First Year Experience FLASH Point. Student development theory classroom management, communication skills, lesson planning, assertiveness training and First Year Experience FLASH Point course content. S/U grading. Prerequisite: US 20201.

20203 Theory and Practice of Peer Tutoring (1)
Preparation for tutoring in several academic areas. Emphasis on the student-as-learner. Introduction to current learning theories. Opportunities provided to adapt learning strategy to particular disciplines. Field experience included. Prerequisite: none.

30202 Returning Student Instructor Seminar (2)
This course is required of all student instructors who are paired with a faculty member in teaching First Year Experience FLASH Point and who have taught First Year Experience FLASH Point previously. Extended training & resource assistance. S/U grading. Prerequisite: US 20202.

40201 University Orientation Intern (3)
Experienced student instructors selected to be student interns are required to take this course. Extended training and skill development for students who assume responsibility for assisting First Year Experience FLASH Point instructors. Prerequisite: US 20202.

40202 University Orientation Trainer (3)
Experienced student instructors selected to be university orientation trainers are required to take this course. It provides extended training and skill development for those who take on the responsibility of orientation trainer. Prerequisite: US 20202.

VETERINARY TECHNOLOGY (VTEC)**

10001 Introduction to Veterinary Technology (2)
Introduction to veterinarian technician's career: medical terminology, career choices, occupational safety, human-animal bond, pet loss, euthanasia, animal husbandry and basic nutrition, breed identification and basic animal behavior. Prerequisite: none.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.

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1002 Veterinary Nursing I (3)
Introduction to animal nursing: record keeping, kennel sanitation, animal restraint, syringe and needle identification/handling, injection techniques, physical exams, grooming and administration of medications. Two-hour lecture and three-hour laboratory weekly. Prerequisite: veterinary technology (VTEC) major.

10204 Clinical Laboratory I (3)
Introduction to the clinical laboratory: equipment and equipment maintenance; hematology and serology; internal and external parasites. Two-hour lecture and three-hour laboratory weekly. Prerequisite: veterinary technology (VTEC) major.

10205 Veterinary Nursing II (3)
Clinical application off site. Emphasis on skills from VTEC 10002: physical exam, medications, blood vessel catheterization, venipuncture, fluid therapy, wound care, dental prophylaxis, first aid, bandaging and CPR. Two-hour lecture and three-hour laboratory weekly. Prerequisites: BSCI 10100; CHEM 10050; HED 14020; VTEC 10002 and 10204. Pre/corequisite: VTEC 10001.

10206 Pharmacology (2)
Regulations controlling the use of drugs and biologicals, classifications and mechanisms of action of pharmaceuticals, dosage calculations, labeling, packaging and dispensing of veterinary products. Two-hour lecture weekly. Prerequisites: BSCI 10100 and 10110; and CHEM 10052 and 10053; and HED 14020; and VTEC 10001 and 10002 and 10204. Pre/corequisite: VTEC 10205.

20008 Clinical Laboratory II (3)
Continuation and application of skills from VTEC 10204, including hematology, serology, urinalysis, cytology and other laboratory skills. Two-hour lecture and three-hour laboratory weekly. Prerequisites: BSCI 10100 and CHEM 10050 and HED 14020 and VTEC 10002 and 10204. Pre/corequisite: VTEC 10001 and 10002.

20009 Veterinary Nursing III (3)
Continuing nursing skills and techniques emphasizing large animal species: restraint, venipuncture, behavior, breeds, feedstuffs, food safety, medications, preventive care, surgical procedures and lameness. Two-hour lecture and three-hour laboratory weekly. Prerequisites: BSCI 10110 and CHEM 10052 and 10053; and VTEC 10001 and 10002 and 10204 and 10205 and 20008. Pre/corequisite: VTEC 10206.

20010 Imaging Techniques (3)
Principles and applications of the production of X-rays, processing, radiation safety, storage, patient positioning and other imaging techniques. Two-hour lecture and three-hour laboratory weekly. Prerequisites: BSCI 10100 and 10110; and CHEM 10052 and 10053; and VTEC 10001 and 10002 and 10204 and 10205 and 20008. Pre/corequisite: VTEC 10206.

20012 Surgery and Anesthesia (3)
Principles and applications of use of anesthetics, patient monitoring, presurgery preparation, post-surgical patient care, sterilization, surgical preparation and assisting and equipment maintenance. Two-hour lecture and three-hour laboratory weekly. Prerequisites: BSCI 10100 and 10110; CHEM 10052 and 10053; and VTEC 10001 and 10002 and 10204 and 10205 and 20008. Pre/corequisite: VTEC 10206.

20013 Nutrition and Disease (2)
Principles of the disease process, disease control and prevention of common diseases of domestic animals. Nutrition principles, especially for clinical diseases, are covered. Prerequisites: BSCI 20021; VTEC 20009 and 20010 and 20212.

20014 Veterinary Nursing and Hospital Procedures (3)
Nursing procedures for laboratory and animal exotic procedures. Procedures by a veterinary technician in a hospital environment, including office and a computer application. One-hour lecture and six-hour laboratory weekly, including computer application. Prerequisites: BSCI 20021; VTEC 20009 and and 20010 and 20212.

20039 Practicum in Veterinary Hospital (5)
Students gain practical experience in a veterinary clinic or an approved clinical site to focus on mastering all clinical skills needed for this career. Prerequisites: BSCI 20021; and VTEC 20009 and 20010 and 20212. Corequisites: VTEC 20012 and 20214.

VISUAL COMMUNICATION DESIGN (VCD)

13001 Introduction to Visual Communication Design I (2)
Introduction to basic design processes using research, writing, conceptual problem-solving and format organization of two-dimensional space utilizing type and imagery. Prerequisites: VCD 13000. Special fee: $15 flat fee—subject to change.

17000 Color: Theory and Application (3)
Color and its interaction through a series of nonapplied (abstract) exercises. Prerequisite: none.

20000 Basic Computer Graphic Design and Illustration—Various Software Programs (3)
A technical, studio course designed to teach the fundamentals of Web design in GoLive and Flash. Material is presented throughout a series of demos, exercises and projects. Prerequisites: VCD 20000. Special fee: $36 flat fee—subject to change.

20006 Kinetic and Sequential Graphic Design I (3)
A technical, studio course designed to teach the fundamentals of newly emerging technologies including Web design in the visual communication design profession. Material will be presented through series of demos and hands-on exercises. Prerequisite: VCD 20003.

20009 Sophomore Entrance Examination/Portfolio Review (1)
Visual communication design faculty review a portfolio of work from prerequisite courses and administer diagnostic examinations of technical and drawing skills and formal organizational ability. SU grading. Prerequisites: VCD 13000 and 13001 and 28000 and 28002 and 38003 (for PHOI majors); or VCD 13001 and 22000 and 22001 and 23002 (for VCD majors); and photo illustration (PHO) or visual communication (VCD) major. Special fee: $5 flat fee—subject to change.

22000 Design/Illustration Techniques I (3)
Introductory course in design/illustration. Object drawing with emphasis toward rendering materials and techniques used in reproduction, perspective, spatial organization and use of reference materials. Prerequisites: VCD 13001.
Courses offered only at Regional Campuses.

22001 Design/Illustration Techniques II (3)
Continuation of Design/Illustration Techniques I with expanded emphasis on black-and-white media used for illustration purposes, with emphasis on media capable of reproduction by traditional printing methods. Prerequisites: VCD 22000.

23000 Intermediate Studio Skills: Graphic Design and Illustration (3)
A technical lecture course designed to outline the process and describe and discuss the technologies and vocabulary used in the printing industry. Prerequisites: VCD 23001. Special fee: $35 flat fee—subject to change.

23001 Introduction to Typography (3)
Historical study of letter forms and their application to the development of new forms. Execution and use of letter forms as design elements in layout and illustration using fundamental typographic theories and rules of spatial organization. Prerequisites: minimum B (3.0) grade in VCD 13000 and 13001. Special fee: $12 flat fee—subject to change.

23002 Introduction to 3D Graphic Design (3)
Continuation of Introduction to Graphic Design and Introduction to Typography with application of typography and imagery to 3-D form. Prerequisites: VCD 13001 and 23001.

24001 Product Design (3)
Research and design of singular self-contained objects. Utilization of industrial materials and fabricating techniques emphasizing aesthetics. Prerequisites: VCD 24000. Special fee: $10 flat fee—subject to change.

24009 Sophomore Portfolio Review (1)
Preparation and review of a portfolio of work under supervision of industrial design faculty, to be judged at end of term. See Requirement 1 under Bachelor of Science in Industrial Design. Prerequisites: VCD 24000.

27000 Interiors Rendering (3)
The production of professional techniques in design communication using felt pens, chalks and pencils. Elevations, plans, furniture, perspectives, axonometrics and furnishings are produced in color. Prerequisites: TECH 11083. Special fee: $12 flat fee—subject to change.

27001 Visual Design for Media: Basic (1)
An introductory lecture course on the theoretical principles of design and their relation to content in magazines, newspapers, television and online media, etc. Course may not be used by visual communication design majors. Prerequisite: none.

28000 Photography (3)
Basic camera techniques to provide a better understanding of photography as a creative skill in visual communication. Prerequisites: VCD 13000 and 13001. Special fee: $55 flat fee—subject to change.

28002 Photography II (3)
Elaborates upon the basic technical information covered in Photography, VCD 28000. Through a series of sequential and interrelated problems, the class is designed to touch upon a series of photographic situations that frequently affect the working professional in the studio, or in the field. Prerequisite: VCD 28000.

30009 Junior Portfolio Review: Graphic Design/Illustration (1)
Required portfolio review in conference with the visual communication design faculty of work completed in VCD 22000, 32001, 33000 and 33001. Students successfully passing review may continue in the B.A. degree. To change to the B.F.A. degree or B.S./M.A. combined degrees in visual communication design, students must receive a minimum B (3.0) grade in junior portfolio review. Those students not receiving a passing grade in review should see Requirement 3 in program section. Prerequisites: VCD 22009 and 38001 and 38003 and 38004 (for PHOI majors); or VCD 32000 and 33000. Corequisites: VCD 33001 and 32001 (for VCD majors); and photo illustration (PHOI) or visual communication (VCD) major.

32000 Illustration I (3)
Continuation of Design/Illustration Techniques I and II with emphasis on technique and creative solutions as they apply to four specific illustration areas, viz., editorial, book, advertising and institutional. Prerequisites: VCD 20009.

32001 Illustration II (3)
Illustration as communication: conceptual problem-solving visualizations of ideas utilizing felt tip markers as the medium of expression. Prerequisites: VCD 32000.

33000 Graphic Design I (3)
Continuation of Introduction to Graphic Design and Introduction to Typography in the structuring of 2-D communication design utilizing headline, body copy and illustration with the addition of limited conceptual content. Prerequisites: VCD 20009. Special fee: $36 flat fee—subject to change.

33001 Graphic Design II (3)
Continuation of Graphic Design I utilizing basic layout with emphasis on concept as applied to problem solving methodologies through a series of exercises and problems. Prerequisites: VCD 32000 and 33000. Special fee: $36 flat fee—subject to change.

37000 Visual Design for Media: Advanced (3)
A laboratory course in which students apply design concepts to computer-generated communication pieces using a layout software program. May not be used toward degree requirements by visual communication design majors. Prerequisite: none. Special fee: $30 flat fee—subject to change.

38001 Photographics (3)
Exploration of basic studio setups and controlled lighting with special emphasis on the inter-relationship of photography and typography in communication. Unique solutions are created through the use of the camera and image manipulation programs. Prerequisites: VCD 13000 and 28000 and 38001 and 38004. Special fee: $45 flat fee—subject to change.

38003 Photo Technology (3)
(Cross-listed with JMC 32003) A professional course serving visual communication design students within photo-illustration major. Designed to give students an advanced working knowledge of digital and film photographic systems through testing procedures and use of special purpose materials. Prerequisites: VCD 13001 and 28000 and photo illustration (PHOI) or visual communication design (VCD) major. Special fee: $45 flat fee—subject to change.

38004 Advanced Photography (3)
(Cross-listed with JMC 32004) Use of specialized equipment, materials and techniques. Development of conceptual abilities and problem-solving skills. Special equipment furnished. Prerequisites: VCD 13001 and 28000. Special fee: $45 flat fee—subject to change.

38008 Photo-Design Techniques (3)
(Cross-listed with JMC 32008) Use of unusual photographic materials and techniques in design of images for many purposes. Prerequisites: VCD 13001 and 28000. Special fee: $45 flat fee—subject to change.

40025 Professional Portfolio: Graphic Design/ Illustration (1-2)
(Repeatable with permission) Develop a professional portfolio in graphic design and/or illustration through selection and refinement of previously completed classroom work/development of projects in areas of deficiency with emphasis on organization and presentation. IP grade permissible. Prerequisites: photo illustration (PHOI) or visual communication design (VCD) major. Special fee: $9/credit hour—subject to change.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
40052 Graphic Design—Travel and Field Experience (1-16)
Development of awareness and understanding in the practical application of graphic design and communication through directed field trip experience. S/U grading; IP grade permissible. Prerequisite: none.

40053 Graphic Design Studio—Glyphix (1-8)
(Repeatable for a total of 24 credit hours)
Professional experience through an internal design studio. Involves responsibilities and procedures for the production of communication materials for off-campus clients including nonprofit organizations, charities, arts groups and selected on-campus groups and departments. May carry an IP grade when appropriate. Prerequisite: none. Special fee: $10/credit hour—subject to change.

40092 Internship 1—Graphic Design/Illustration (1)
Preparation for experience in design studio, agency or company involving design responsibilities and procedures to broaden a student’s understanding of the profession through real job situations. S/U grading; IP grade permissible. Prerequisite: none.

40095 Special Topics: Graphic Design/Illustration (1-4)
(Repeatable for a total of 16 credit hours) To broaden the course offerings into specialized areas of study in graphic design and illustration taught by experts in the profession as guest faculty. Primarily used to fulfill electives in graphic design or illustration. S/U grading; IP grade permissible. Prerequisite: VCD 30009. Special fee: $7/credit hour—subject to change.

40096 Individual Investigation in Graphic Design and Illustration (1-8)
(Repeatable for a total of 16 credit hours) Individual study related to topics of graphic design and illustration approved by and under the direction of a faculty member. IP grade permissible. Prerequisite: none.

40192 Internship 2—Graphic Design/Illustration (1-6)
3 credit hours required; maximum of 6 credit hours allowable in B.F.A. degree only. Experience in design studio, agency or company involving design responsibilities and procedures to broaden a student’s understanding of the profession through a real job situation. S/U grading. IP grade permissible. Prerequisites: VCD 40092.

40193 Variable Title Workshop in VCD (1-3)
Workshop setting dealing with intensive examination of special topics in VCD. May be repeated. Prerequisite: none.

40195 Selected Topics: Graphic Design/Illustration (1-4)
(Repeatable registration permissible) Variable topics related to GD&I. Prerequisite: none.

40200 Advanced Illustration: Media (3)
Discussions and practice of media and grounds as they pertain to the illustration field. Discussion will also center around the problems in developing work for reproduction. Prerequisites: VCD 30009.

40202 Editorial Illustration (3)
Exploration and discussion of various illustration techniques and their application in the publishing field. Emphasis is placed on client needs, concept and intended audience. Prerequisites: VCD 30009.

40203 Advertising Illustration (3)
Exploration and discussion of various illustration techniques and their application in advertising. Emphasis is placed on client need, concept of solution and intended audience. Prerequisites: grade of B (3.0) or better in VCD 30009.

40204 Computer Illustration (3)
An introductory course on the use of the computer as an illustration tool. The class will cover the necessary computer applications for advertising, editorial and book illustration. Prerequisites: VCD 20000.

40205 Calligraphy and Layout (3)
Development of creative techniques and technical proficiency in calligraphy as applied to illustration and graphic design. Prerequisites: VCD 30009.

43000 Studio Production (3)
A technical lecture course designed to teach the fundamental techniques and processes of electronic prepress and printing production. Material is presented through lectures, demos, tests and field trips. Prerequisites: grade of B (3.0) or better in VCD 30009. Special fee: $10 flat fee—subject to change.

43001 Kinetic and Sequential Graphic Design II (3)
The exploration of the use of the computer in kinetic and sequential graphic design, 3-D modeling, and sound. Prerequisites: VCD 30000. Special fee: $30 flat fee—subject to change.

43002 Typographic/Photographic Graphic Design (3)
The use of typography (rather than visual imagery) as the primary design form in solving graphic design communication problems. Prerequisites: VCD 30009. Special fee: $38 flat fee—subject to change.

43003 Corporate Identity/Graphic Design (3)
Use of graphic design forms (typography, photography and illustration) in the development of corporate identification for total advertising programs. Prerequisites: VCD 30009. Special fee: $33 flat fee—subject to change.

43004 Issues for Graphic Design Businesses (3)
Designed to familiarize students with the basic business, marketing, legal and ethical standards in the graphic design industry. Prerequisites: VCD 30009. Special fee: $10 flat fee—subject to change.

43005 3-D Graphic Design—Direct Mail/Packaging/Point Purchase (3)
Use of typography, visual images, photography and illustrations in the structure of information for communication on 3-D surfaces (direct mail, packaging and point-of-purchase display). Prerequisites: VCD 30009. Special fee: $30 flat fee—subject to change.

43006 Environmental Graphic Design (3)
Aims at coordinating architectural planning, interior design, systems analysis and graphic communications. Prerequisite: none. Special fee: $10 flat fee—subject to change.

43007 Information Graphics (3)
(Cross-listed with JMC 46001) Introduction to shapes, color, type and combinations of these for computer-designed news graphics; maps, charts, graphs and diagrams. Prerequisites: JMC 20004 and 20007; and VCD 13001 or 27001. Special fee: $30 flat fee—subject to change.

43051 Experimental Typography (1-3)
(Repeatable for a total of 12 credit hours) Investigation of form, pattern and texture in typographic usage. Emphasis on linking traditional letterform technology and computer-generated forms. May carry an IP grade when necessary. Prerequisites: grade of B (3.0) or better in VCD 30009. May carry an IP grade when necessary. Prerequisites: grade of B (3.0) or better in VCD 30009. Special fee: $12/credit hour—subject to change.

44001 Packaging and Exhibition Design (3)
Study and design of containers, packaging systems and exhibits in relation to particular function, including merchandising, learning and recreation. Prerequisite: none. Special fee: $12 flat fee—subject to change.

45000 Graphic Design Perspectives (3)
Comprehensive exploration of design through history. Topics include the early alphabet, print processes, illustration, photography, corporate design, modern design and digital processes. Prerequisite: visual communication design (VCD) major and junior standing.

*Course ineligible to be repeated for GPA recalculation.
**Courses offered only at Regional Campuses.
46000  Web Design and Programming I (3)  (Cross-listed with CS 47105) Course focus is on Web concepts and high quality Web design; CS and VCD principles, tools, architecture, presentation, design and creation of Web sites through teamwork. Course is jointly taught by CS and VCD. IP grade permissible. Prerequisites: CS 10051 and VCD 13001. Special fee: $20 flat fee—subject to change.

46001  Web Design and Programming II (3)  (Cross-listed with CS 47106) An elective course jointly taught by computer science and VCD on advanced Web technologies and multimedia Web design: Web servers, security, advanced design, java servlets, applets, database connectivity, site maintenance, relation of actual Web sites by teamwork. IP grade permissible. Prerequisites: VCD 46000. Special fee: $20 flat fee—subject to change.

46003  Digital Typography (2)  Applying typographic rules in digital environments. Organizing large amounts of text in complex architectures and designing viewer controlled space. Exploration of dynamic information, sound and motion sequences. Prerequisites: VCD 23001 or 27001 or 37001.

46005  Web Design and Programming Studio (3)  (Cross-listed with CS 47107) A joint computer science and visual communication design project course exploring advanced aspects of Web design and programming. Student may pursue individually defined projects or team projects for real clients. Limited enrollment. Prerequisites: VCD 46001.

46007  Photo Illustration Techniques (3)  (Cross-listed with JMC 42007) Creative photography for advertising and editorial uses. Art director/photographer relationship stressed in given assignments. Critique by professionals in addition to academic evaluation. Prerequisites: VCD 38003 and 38004 and 48005; and photo illustration (PHOI) or visual communication design (VCD) major. Special fee: $45 flat fee—subject to change.

46009  Fashion Photography (3)  (Cross-listed with JMC 42009) Instruction in studio lighting, filters and special effects. Emphasis on editorial and advertising fashion photography. Studio and location assignments. Prerequisites: VCD 38003 and 38004 and 48005; and photo illustration (PHOI) or visual communication design (VCD) major. Special fee: $45 flat fee—subject to change.

48092  Practicum in Photography (1-3)  (Repeatable for a total of 10 hours. Cross-listed with JMC 42092) Individual or group investigation into student-selected areas of photographic field. Prerequisite: junior or senior standing; and photo illustration (PHOI) or visual communication design (VCD) major. Special fee: $15/credit hour—subject to change.

49098  Senior Research Proposal: Graphic Design and Illustration (1)  Research proposal must be approved by a faculty committee before project is started. Research paper or project must meet the educational and professional criteria of the program. S/U grading; IP grade permissible. Prerequisite: senior standing and visual communication design (VCD).

49198  Senior Research Paper: Graphic Design/ Illustration (2)  Written documentation of a senior project in graphic design or illustration. If Senior Project G/D/I, VCD 49199 option is chosen, it must be taken concurrently with Senior Research Paper and presented for final review by a faculty committee. IP grade permissible. Prerequisites: senior standing and VCD 49098. This course may be used to satisfy the writing-intensive requirement with approval of major department.

49199  Senior Project: Graphic Design/ Illustration (3)  A final visual project in graphic design or illustration structured by a senior (with approval by faculty committee), completed independently and presented for review and evaluation by a faculty committee during final semester before graduation. IP grade permissible. Prerequisite: photo illustration (PHOI) or visual communication design (VCD) major; and senior standing. Special fee: $21 flat fee—subject to change.

**WOMEN’S STUDIES (WMST)**

20095  Special Topics in Women’s Studies (1-5)  (Repeatable registration permissible when topic varies) Study of selected topics in women’s studies from an international or global perspective. Prerequisite: WMST 30000 or 30001.

40193  Variable Title Workshop in Women’s Studies (1-6)  (Repeatable registration permissible) Workshop focused on a specific topic within women’s studies. S/U grading. Prerequisite: none.

40992  Practicum in Women’s Studies (3)  An assignment at a private, public or nonprofit organization that centers on women’s issues, such as education, health and policy making. Arrangements must be made in the semester prior to registration. Prerequisite: special approval.