

HEALTH EDUCATION (HED)*11570 Personal Health (3)*

This course examines the leading causes of death and disability in the United States with an emphasis on the application of knowledge and skills to reduce risk and enhance the quality of life. Prerequisite: None.

11590 Community Health (3)

Identification of community health problems and measures for control. Emphasizes principles, objectives, and methods of community health planning. This course includes 5 field/clinical hours. Prerequisite: None.

13510 Winning Combination: Health and Athletes (1)

An exploration of strategies for promoting healthy lifestyles for athletes. The course is reserved for varsity athletes. Prerequisite: Varsity athlete.

14020 Introduction to Medical Terminology (2)

Identification of the meaning of various roots and terms and combining forms that are components of medical words, including anatomical, physiological, and pathological terminology. Prerequisite: None.

20000 Health Education for Early Childhood Educators (3)

Investigate current health issues relevant to children in preschool environments/primary grades, and identify educational strategies to increase student health knowledge, foster positive health attitudes, and promote healthy behaviors. Prerequisite: None.

21030 Introduction to Health Education (3)

This course introduces the student to the health education profession. Roles and responsibilities of health educators in a variety of occupational settings are described. Prerequisite: None.

21050 Health Behavior and Advocacy (3)

Application of various attitude and behavior models to health and illness behavior in order to develop a framework for educational intervention. This course includes 5 field/clinical hours. Prerequisites: HED 11570 and 11590.

22565 Health Data Analysis and Presentation (3)

Analysis, interpretation, and presentation of data utilized in epidemiological surveillance and evaluation. Application of statistical and graphic computer programs in this area. Prerequisite: None.

32530 Drugs and Health (3)

Introduction to the study of drug/alcohol abuse. Basic pharmacology of drug actions is reviewed. Common myths/misconceptions about drug/alcohol use are examined. Current drug problems and related prevention/treatment issues are analyzed. Prerequisite: None.

32542 Methods and Applications of Health Education (5)

Analysis observation, demonstration, and experience in the teaching-learning process utilizing methods, materials, and resources appropriate to the preparation of professional health educators. This course includes 50 field/clinical hours. Prerequisites: HED 11570 and 11590. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

32544 Human Sexuality (3)

A study of the role and meaning of human sexuality throughout the life cycle for self and society. Prerequisite: None.

32565 Marketing in Health Education (3)

Examines the basic elements of marketing processes as they relate to promoting health in communities. Emphasis on application of marketing/planning concepts and practices for service providers involved with health education. Prerequisite: None.

32575 Consumer Health Advocacy (3)

An overview of the health marketplace including health products, services, financing, promotional practices, and consumer protection laws. Guidelines for intelligent purchasing decisions are offered. Prerequisite: HED 11570 or permission.

34050 Program Planning and Evaluation in Health Education (3)

Provides students with the knowledge and skills to assess health resources and needs, develop health programs to meet specific needs in particular populations and determine appropriate measures to evaluate the effectiveness of health programs. Prerequisites: HED 11590 and 32542.

34060 Small Group Processes (2)

(cross-listed with CHDS 37800) Group processes in human relationships, including techniques of democratic leadership and effective group membership. This course includes 25 field/clinical hours. Prerequisite: None.

36041 Health Education for Elementary Teachers (3)

Investigates current health issues relevant to children K-8; educational strategies to motivate positive behaviors, and appropriate materials, resources, and media. Includes development of resource unit. Prerequisite: Junior standing.

36048 Emergency Medical Training (5)

Basic immediate care procedures for victims of acute illnesses and accidents. Course conforms to EMT-B National Standard Curriculum as adopted by the Ohio Department of Public Safety, Division of EMS, and is conducted in accordance to local guidelines. Prerequisite: None; controlled registration. Special Fee: \$4.00/cr. hr.—subject to change.

36070 Health Related Aspects of Aging (3)

Theories of biological aging and identification of major health hazards, their prevention and control. The health care delivery system for the elderly. Prerequisite: None.

40093 Variable Title Workshop in Health Education and Promotion (1-3)

Discussion of major issues in health and safety education. Content, emphasis, and prerequisites vary depending on workshop. "S/U" grading. Prerequisites: HED 11590 and controlled registration.

41561 Environmental Health (3)

Effects on human health of over-population and various sources of energy and the resultant environmental pollutants. Consideration of alternatives and solutions. Prerequisite: HED 11570.

42041 Health Counseling (3)

Techniques of counseling applied to health education. Individual and group approaches relative to personal, family, and societal health issues. This course includes 20 field/clinical hours. Prerequisite: None.

42575 Health and Learning: Strategies for Students and Teachers (3)

Professional lit confirms the value of coordinated school/community strategies to promote health to improve academic outcomes. Focus on health issues/education/environment policy and practice strategies to respond to threats confronting students. Prerequisite: Admission to Professional Education.

42580 Professional Issues in Health Education (2)

Career preparation through investigation of professional role, standards, issues in work settings. Prerequisites: HED 44095.

44025 Women's Health Issues (3)

Traditional and feminist analysis of women's health issues and the health educational responses to those issues. Prerequisite: None.

44092 Internship in Community Health Education (12)

Participation for one academic semester in the health education activities of an approved agency, organization, or industry. Controlled registration. "IP" grade permissible. Prerequisites: Senior standing.

44543 Administration of School Health Programs (3)

Organizational design and administration of a comprehensive school health program including health services, instruction, and environment. This course includes 25 field/clinical hours. Prerequisite: HED 11570.

44544 Sexual Health Promotion Programs (3)

This course prepares the student to develop, implement, and evaluate sexuality education programs in school and community settings. Prerequisite: HED 22544 or equivalent.

44550 Drug Abuse and Violence Prevention (3)

Drug abuse and violence prevention from theoretical, philosophical, empirical, and practical perspectives. Application of etiological theories to planning prevention programs. Prerequisite: HED 11570 or permission.

46041 Educational Practices for High-Risk Children and Youth (3)

Selected topics (substance abuse, sexuality, suicide, depression, runaway, abuse/neglect) that affect self-esteem are discussed. Information and instructional approaches are considered. Prerequisite: SPED 43201.

46052 Stress: Recognition and Management (2)

An examination of stress, its role as a predisposing factor for various illnesses and diseases, types of stressors, the body's reaction to stress, and techniques for recognizing, preventing, and reducing stress. Prerequisite: HED 11570 and BSCI 10010.

46057 Advanced Human Sexuality (3)

Selected aspects of human sexuality; history, cross-cultural perspectives, medical/surgical conditions, and sex therapy and counseling. Prerequisite: HED 22544.

46060 Death Education (3)

Issues of living with the human experiences of death and facilitating understanding with selected client systems in schools and community agencies. Prerequisites: HED 11570 and PSYC 11762.

47070 Aids: Issues, Education, and Prevention (3)

This course provides an extensive overview of the Human Immunodeficiency Virus epidemic as it has developed and exists today. A particular emphasis will be given to AIDS education and prevention issues and strategies.

47091 Current Issues and Trends in Health Education and Promotion (1-3)

Topics of critical concern to the prospective teachers, administrators, and health professionals. Prerequisite: Junior or senior standing.

48092 Field Experience in Health Education and Promotion (1-3)

Observation and participation in educational activities of an official or voluntary health agency or health care facility. Joint University-agency supervision. "S/U" grading; "IP" permissible. Prerequisite: HED 11590.

48096 Individual Investigation in Health Education (1-3)

(repeatable for a total of 6 hours) Controlled registration. "IP" grade permissible. Prerequisite: Junior standing.

49525 Inquiry Seminar into Professional Practice (3)

Interdisciplinary inquiry into teaching as a professional practice in health education; emphasis on teacher as disciplined investigator. Final semester of four. Utilization or teaching/learning technology. Prerequisite: EDPF 39595, co-requisite SPED 43981.

HEBREW (HEBR)

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

12101 Elementary Hebrew I (4)

An introduction to the modern Hebrew language in the context of Israeli culture. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

12102 Elementary Hebrew II (4)

A continuation of the introduction to the modern Hebrew language in the context of Israeli culture. Prerequisite: HEBR 12101 or equivalent. This course may be used to satisfy the Liberal Education Requirements.

22104 Intermediate Hebrew I (3)

Continued development of speaking, listening, reading, and writing skills using a variety of cultural materials. Prerequisite: HEBR 12102 or equivalent.

22105 Intermediate Hebrew II (3)

Continuation of HEBR 22104. Prerequisite: HEBR 22104 or equivalent.

HISTORY (HIST)**11050 History of Civilization I (3)**

World history from early human societies through the mid-seventeenth century. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

11051 History of Civilization II (3)

Continuation of HIST 11050. World history from mid-seventeenth century to the present. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

12070 History of the United States: the Formative Period (3)

A survey of United States history through 1877. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

12071 History of the United States: the Modern Period (3)

A survey of United States history since 1877. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

31009 History of Byzantine Civilization (3)

The Byzantine Empire and its culture from the foundation of Constantinople to the Turkish Conquest (A.D. 330-1453). Prerequisite: None.

31024 World War II (3)

Survey of one of the greatest political and military events in history, focusing especially on causes, major personalities, and chief political, ideological, moral, scientific, and diplomatic aspects. Prerequisite: None.

31027 History of England to 1688 (3)

Survey of medieval and early modern England. Topics include Norman Conquest, medieval culture and society, Reformation, Age of Elizabeth, English Revolution. Prerequisite: None.

31028 England Since 1688 (3)

Survey of national development from the Glorious Revolution through the Second World War, with special attention to leaders, prominent individuals, and problems of change. Prerequisite: None.

31029 History of the British Empire and Commonwealth Since 1815 (3)

Survey of British colonialism and nation-building with an emphasis on Canada, Australia, Ireland, India, and South Africa. Prerequisite: None.

31050 History and Society of Modern Greece (3)

Study of Modern Greece concentrating on political, economic, cultural, and societal developments since 1821. Prerequisite: None.

31051 Romanian Civilization (3)

Survey of major features of Romanian Civilization from antiquity to modern era. Prerequisite: None.

31061 History of Ohio (3)

Prerequisite: None.

31070 History of American Business Enterprise (3)

An analysis of American business institutions, practices, and leadership from the colonial period to the present. Prerequisite: None.

31078 African American History (3)

Survey of the black experience in the United States from the colonial period to the present time. Prerequisite: None.

31112 Chinese Civilization (3)

General survey of evolution of Chinese civilization from the Bronze Age to the rise of Communism. Prerequisite: None.

31118 Vietnam War (3)

Study of the causes, evolution, and effects of warfare in Vietnam from 1946 to 1975, with special attention to colonialism, nationalism, communism, and American intervention. Prerequisite: None.

31125 Zionism and Israel (3)

Describes history of the Zionist movement from religious, ideological, and political viewpoints, and the relationship between Zionism and the State of Israel. Prerequisite: None.

31126 History of the Middle East (3)

A survey of Islamic civilization in Middle Eastern context from the earliest days to the present. Prerequisite: None.

31127 Ancient and Early Medieval Jewish History (3)

Deals with the ancient and early medieval Jewish history from approximately 2000 B.C. to approximately 1200 A.D. Prerequisite: None.

31128 Late Medieval and Modern Jewish History (3)

Survey of Jewish history in Europe and the Middle East from the age of the Crusades to the twentieth century. Prerequisite: None.

31130 History of African Civilization (3)

Survey of cultural, political, social, and economic history of Africa from antiquity to European conquest. Emphasis on pre-Colonial. Prerequisite: None.

31140 Modern Latin America (3)

Focuses on twentieth-century Latin America and the efforts by social classes and their political leaderships to overcome obstacles of underdevelopment. Emphasis on Argentina, Brazil, Chile, Mexico, Cuba, and Central America. Prerequisite: None.

31141 Early Latin America (3)

Examines Latin America from precolonial times to the late nineteenth century. Lectures emphasize political and economic questions while readings focus on social history. Prerequisite: None.

31143 The African-Brazilian Experience in Culture and Literature (3)

(cross-listed with PAS 37143, PORT 37143, SPAN 38143) Interdisciplinary approach to the study of the African-Brazilian experience, from the colonial period to the present, as reflected in selected literary, sociocultural, and historical texts. Course taught in English. Prerequisite: Junior standing or permission.

31789 The French Revolution and Napoleon (3)

Analysis of the causes of revolution in France, political and ideological conflict under successive regimes in Paris, and expansion of revolutionary activity outside of France. Prerequisite: Junior standing.

38095 Selected Topics in History (3)

Special history course, varying in accordance with desire and competence of faculty. Precise title to be inserted in *Schedule of Classes*. Prerequisite: None.

38997 Colloquium in History (3)

Various philosophical and methodological approaches to the study of history are considered. Required for those seeking to graduate with honors in history. Prerequisite: None.

40197 American Cultural Heritage: the Arts and Society (3)

Examination of music, painting, and literature in their cultural contexts during four periods of American history. American studies methodology and interdisciplinary thought. Prerequisites: Junior standing and one prior course in history.

41000 Introduction to Public History (3)

A survey of Public History including: archives; editing; museums and historical agency administration; historic preservation; and related skill areas (e.g., artifact analysis, oral history). Prerequisite: Junior standing.

41003 History of Ancient Greece (3)

Survey of Greek history from the Bronze Age to the rise of Macedonia and Alexander the Great. Prerequisite: Junior standing.

41004 Hellenic Contributions to Western Civilization (3)

Major intellectual and cultural achievements of the Greeks — ca. 800-350 B.C. Prerequisite: Junior standing.

41006 Roman History (3)

(cross-listed with CLAS 41006) A survey of Roman history from its beginnings to the Fall of the Roman Empire. Prerequisite: Junior standing.

41010 The Early Middle Ages (3)

Survey of major political, social, and cultural developments of Europe from the fourth through tenth centuries. Prerequisite: Junior standing.

41011 The High Middle Ages (3)

Survey of political, social, and cultural developments of Europe from eleventh through thirteenth centuries. Prerequisite: Junior standing.

41012 Medieval Ideas and Institutions (3)

Selected problems treating the social and cultural bases of medieval civilization. Prerequisite: Junior standing.

41014 Europe in the Renaissance (3)

Analysis of the various factors leading Europe from a rural, feudal, ecclesiastical society to one characterized by urbanism, trade, secularism, and the state. Prerequisite: Junior standing.

41016 The Protestant and Catholic Reformations (3)

Comprehensive course dealing with the religious, political, economic, and social change accompanying the religious upheavals of the sixteenth century. Prerequisite: Junior standing.

41017 Seventeenth-Century Europe (3)

This course will analyze those political, economic, social, religious, and intellectual factors leading to economic crisis and civil wars in Europe. Prerequisite: Junior standing.

41018 Eighteenth-Century Europe: Age of Revolution (3)

This course will analyze the many different factors and unresolved crises of the seventeenth century that led to revolution throughout Europe. Prerequisite: Junior standing.

41020 Nineteenth-Century Europe (3)

Focus on industrialization and social transformation, political upheavals, intellectual thought, nationalism, and foreign policy in Great Britain, France, Prussia, and Austria. Prerequisite: Junior standing.

41024 Modern European History, 1914-1945 (3)

Special attention paid to the two World Wars, Bolshevik Revolution, rise of Fascism, and fate of European Jewry. Prerequisite: Junior standing.

41025 Modern European History: 1945 to Present (3)

Survey of European political, economic, social, and cultural developments since 1945. Prerequisite: Junior standing.

41026 Tudor England 1485-1603 (3)

Early Modern England with emphasis on Renaissance, Reformation, social change, and the Tudor monarchs, Henry VIII and Elizabeth. Prerequisite: Junior standing.

41028 Hanoverian England (3)

England under first three Georges, with stress on growth of political parties, duel for world empire, the French and Industrial Revolutions. Prerequisite: Junior standing.

41031 Modern British Intellectual History (3)

British social, political, and aesthetic thought since 1700. Prerequisite: Junior standing.

41040 History of Germany, 1648-1871 (3)

Focuses on the rise of Prussia, the cultural revival of the eighteenth century, the impact of the French Revolution, and the process of unification. Prerequisite: Junior standing.

41041 History of Germany, 1871—Present (3)

Focuses on the impact of industrialization, the dilemma of the German left, the rise of Nazism, and the emergence of two German states after 1945. Prerequisite: Junior standing.

41044 Russia From Its Origins to 1801 (3)

Study of the Russian people, state, and culture in the Kievan, Muscovite, and early Imperial periods, with emphasis on major institutional, socioeconomic, and ideological changes. Prerequisite: Junior standing.

41045 Russia, 1801 to Present (3)

Focus on the Imperial bureaucracy, Russian intelligentsia, the nationality question, modernization, the Russian Revolutions, Civil War, NEP, and collectivization which shaped Russian/Soviet history. Prerequisite: Junior standing.

41049 History of the Balkans: Eighteenth Century to 1914 (3)

Survey of Albanians, Bulgarians, Greeks, Romanians, and South Slavs under Ottoman domination and their struggles for national independence. Prerequisite: Junior standing.

41050 History of the Balkans: 1914 to Present (3)

The Balkans since 1914, including coverage of post-World War II period. Prerequisite: Junior standing.

41056 History of Colonial America: 1492-1714 (3)

Major patterns of thought and behavior among Spanish, French and English expansionists; English colonization to 1714. Prerequisite: Junior standing.

41057 Eighteenth-Century America: 1714-1789 (3)

Cultural development of English Colonies; Great War for Empire; American Revolution and Constitution. Prerequisite: Junior standing.

41058 Jefferson-Jackson Era, 1789-1848 (3)

Study of the founding and development of the American nation, especially the periods of Jefferson and Jackson. Prerequisite: Junior standing.

41062 The United States: the Westward Movement (3)

The process of settlement from its beginnings; consequences for American history. Prerequisite: Junior standing.

41065 Sectional Conflict and Civil War (3)

Differences within the United States, including the controversy over slavery; the Civil War in all its aspects. Prerequisite: Junior standing.

41066 Reconstruction and the Later South (3)

Controversy during and after the Civil War as to racial and sectional relationships; the post-Reconstruction compromises and their undoing. Prerequisite: Junior standing.

41068 Progressive America: the United States, 1900-1929 (3)

Prerequisite: Junior standing.

41069 Recent America: the United States, 1929-Present (3)

Prerequisite: Junior standing.

41070 American Social and Intellectual History 1790-1876 (3)

Major currents of the period: Social background of the early republic; religious development; impact of the frontier; abolition. Prerequisite: Junior standing.

41071 American Social and Intellectual History, 1876-Present (3)

Continuation of HIST 41070. Development of Social Darwinism, racism, pragmatism, popular arts. Prerequisite: Junior standing.

41072 American Military History, 1775-1900 (3)

Survey of American military history from its colonial origins to 1900. Prerequisite: Junior standing.

41073 American Military History, 1900-Present (3)

Survey of American military history from 1900 to the present. Prerequisite: Junior standing.

41074 American Economic History (3)

Survey of growth and development of American economic and business life from colonial times to the present. Prerequisite: Junior standing.

41079 History of the Immigrant in America (3)

Impact of, primarily, European immigrants on America from the seventeenth century to the present and the influence in turn of America on the immigrants. Prerequisite: Junior standing.

41082 Constitutional History of the United States (3)

Prerequisite: Junior standing.

41083 U.S. Foreign Relations Through World War I (3)

The evolution of U.S. foreign policy from its colonial origins through the Paris Peace Conference of 1919 with special emphasis on the domestic roots of foreign policy. Prerequisite: Junior standing.

41084 U.S. Foreign Relations From 1920 (3)

The history of U.S. foreign policy from the 1920s on with special emphasis on the evolving role of America as a world power. Prerequisite: Junior standing.

41112 History of Modern China (3)

Disintegration of the Chinese empire amid Western challenge and internal disorder and the subsequent rise of Communism. Prerequisite: Junior standing.

41114 Economic History of East Asia in Modern Times (3)

Contrast between China and Japan in their efforts toward industrialization since the mid-nineteenth century. Prerequisite: Junior standing.

41116 History of Japan (3)

General survey of the development of Japan from a loose confederation of clans to a modern industrial state. Prerequisite: Junior standing.

41129 The Holocaust: the Destruction of European Jewry, 1938-1945 (3)

Analysis of those political, economic, social, and intellectual factors leading to systematic destruction of European Jewry during World War II. Prerequisite: Junior standing.

41131 History of Africa to 1880 (3)

Prerequisite: Junior standing.

41132 History of Africa, 1880-Present (3)

Prerequisite: Junior standing.

41135 History of West Africa (3)

Prerequisite: Junior standing.

41142 Independence in Latin America (3)

A study of revolutions and wars through which Spanish America achieved its independence as well as the peaceful separation of the Brazilian Empire from Portugal. Prerequisite: Junior standing.

41143 Twentieth-Century Mexico (3)

Beginning with the 1910 Mexican Revolution and concluding with the present administration, this course focuses on domestic and international events which have shaped present-day Mexico. Prerequisite: Junior standing.

42297 Colloquium: China and Japan (3)

Study of important issues in the history of China and Japan through reading and discussing major works pertinent to the issues selected. Prerequisite: Junior standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

42567 Race Relations (3)

(cross-listed with SOC 42567) Historical and sociological principles underlying race and ethnic relations; emphasis on Black-White relations in the U.S. Prerequisite: Junior standing.

43697 Colloquium in Tudor and Stuart England (3)

Discussion of major problems of Early Modern England, including the reformation, Puritan movement, social and economic change, and political conflict. Prerequisites: Junior standing and permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

43797 Colloquium on Victorian England (3)

Consideration of distinctive features of Victorian England including class structure, ideas, manners, politics, foreign affairs, empire. Prerequisite: None. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

44297 Colloquium in African History (3)

This course will deal with some of the major themes of African history. Topics will vary from semester to semester. Prerequisite: Junior standing.

45597 Colloquium in Russian History (3)

Study of major issues in Russian history through analysis and discussion of the historiography and critical writing. Prerequisite: Junior standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

45697 Colloquium: Social History of Latin America (3)

The formation of Latin American societies from the Iberian Conquest to the present. Prerequisite: Permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

45797 Colloquium: Comparative Latin American Revolutions (3)

A study of the meaning of revolution in Latin America from the wars of independence to the Nicaraguan revolution in 1979. A comparative approach is employed focusing on Mexico, Brazil, Cuba, Chile, and Central America. Prerequisite: Permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

46597 Colloquium in Twentieth-Century European Diplomacy (3)

Coverage of important works dealing with major diplomatic issues from origins of World War I to present. Prerequisite: Junior standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

46897 Colloquium on the Age of Jefferson (3)

Intensive examination of the problems of a critical period of American history through readings, reports, and discussions. Prerequisite: Junior standing.

47597 Colloquium on NATO (3)

An examination of the historical significance of the Atlantic Alliance from its origins in the late 1940s to the present. Prerequisite: Junior standing.

47697 Colloquium on Post-1945 Europe (3)

Coverage of the historical literature on Europe's major political, diplomatic, economic, and social developments since 1945. Prerequisite: Junior standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

48097 Colloquium in Twentieth-Century U.S. Foreign Relations (3)

Covers U.S. diplomatic history from World War I to the present emphasizing bibliography and historiography. Prerequisite: Junior Standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

48697 Colloquium: U.S. Middle Period, 1820-1900 (3)

Reading, discussion and written reviewing of important works on the period. Prerequisite: Junior standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

48797 Colloquium in U.S. Negro History to 1877 (3)

Colloquium in a specialized phase or aspect of Afro-American history prior to 1877. Prerequisite: Junior standing.

48897 Colloquium in U.S. Negro History Since 1877 (3)

Colloquium in a specialized phase or aspect of Afro-American history since 1877. Prerequisite: Junior standing.

48997 Colloquium on the Immigrant in American History (3)

Study of the major problems and writings in, and approaches to, American immigration history through discussion and critical writing. Prerequisite: Junior standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

49195 Selected Topics in History (3)

Special history course, the subject/topic of which varies in accordance with desire and competence of faculty. Precise title to be inserted in *Schedule of Classes*. Prerequisite: Junior standing.

49196 Individual Investigation (2-3)

"IP" grade permissible. Prerequisite: Permission.

49199 Senior Honors Project (3-6)

Thesis or other independent study or creative project. Required of students seeking to graduate with honors in history. "IP" grade permissible. Prerequisite: Permission (See HONR 40099).

HONORS COLLEGE (HONR)

In addition to the prerequisites, all Honors courses are CONTROLLED.

10096 Individual Honors Work (1-4)

Directed independent study for freshmen in any department. "IP" grade permissible. Prerequisites: Prior consent of instructor; approval of and preregistration with Honors College.

10197 Freshman Honors Colloquium I (1-4)

Required of all honors freshmen in lieu of College English. Stresses exploration, discussion, and communication of ideas expressed in works related to theme of Colloquium. "IP" grade permissible. Prerequisite: Honors or permission.

10297 Freshman Honors Colloquium II (1-4)

Continuation of HONR 10197. "IP" grade permissible. Prerequisite: Honors or permission.

13197 Colloquium: the History of Civilization I (3)

World history from early human societies through the mid-seventeenth century. Prerequisite: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

13297 Colloquium: the History of Civilization II (3)

Continuation of HONR 13197. World history from mid-seventeenth century to the present. Prerequisite: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

13397 Colloquium: U.S. History I (3)

Survey of U.S. history through 1877. Prerequisite: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

13497 Colloquium: U.S. History II (3)

Survey of U.S. history since 1877. Prerequisite: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

15297 Colloquium: American National Government (3)

This course examines the constitutional and institutional structures of the federal government of the United States; the functioning of the public policy process; and the political behaviors of interest groups, office holders, and the electorate. Prerequisite: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

15397 Colloquium: Introduction to 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: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

15497 Colloquium: Introduction to Politics (3)

World's major patterns of government, distinguishing between cabinet, parliamentary, presidential, authoritarian and totalitarian systems; institutions and dynamics of each. Prerequisite: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

20096 Individual Honors Work (1-4)

Directed independent study for sophomores in any department. "IP" grade permissible. Prerequisite: Prior consent of instructor; approval of and preregistration with Honors College.

20197 Sophomore Colloquium (1-4)

One-semester course or two-semester sequence exploring interdisciplinary ideas and issues related to a single theme, by means of readings, discussion, and individual papers and projects. "IP" grade permissible. Prerequisite: Honors standing or permission.

20297 Sophomore Colloquium (1-4)

See HONR 20197. "IP" grade permissible. Prerequisite: Honors or permission.

21197 Colloquium: Principles of Economics I (3)

Principles and policies affecting prices, including factor incomes, under alternative market structures. Tools developed to examine social problems, including poverty, crime, pollution, and international relations. Prerequisite: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

21297 Colloquium: Principles of Economics II (3)

Principles and policies affecting aggregate production, consumption, investment, and government expenditures. Includes role of money, the banking system, inflation, unemployment, and economic growth. Prerequisite: Honors or permission. This course may be used to satisfy the Liberal Education Requirements.

25197 Colloquium: State and Local Government (3)

Study of three branches of state government coupled with examination of politics, organization, and functions of counties, townships, and special districts. Prerequisite: Honors or permission.

25497 Colloquium: Political Theory (3)

Examines role and impact of ideas on politics; presents political theory in historical perspective; analyzes alternative theories of politics, their values and justifications. Prerequisite: Honors or permission.

30096 Individual Honors Work (1-4)

Directed independent study for juniors in any department. "IP" grade permissible. Prerequisites: Prior consent of instructor; approval of and preregistration with Honors College.

30197 Junior Colloquium (1-4)

One-semester course or two-semester sequence for juniors or seniors exploring interdisciplinary ideas and issues related to single theme, by means of readings, discussion, and individual papers and projects. "IP" grade permissible. Prerequisite: Honors or permission.

30297 Junior Colloquium (1-4)

See HONR 30197. "IP" grade permissible. Prerequisite: Honors or permission.

30497 Colloquium: International Study (1-4)

Designed for students preparing for participation in overseas programs sponsored by Center for International and Comparative Programs. Provides basis for future research abroad. "IP" grade permissible. Prerequisite: Honors or permission.

33097 Colloquium in History (3)

Honors equivalent of HIST 38997. Stresses research and reading of original materials. Prerequisite: Honors or permission.

35097 Colloquium in Political Science (1-4)

Intensive study of significant problems in politics. Topic, readings, and core research theme vary from semester to semester. Prerequisite: Honors or permission.

40096 Individual Honors Work (1-4)

Directed independent study for seniors in any department. "IP" grade permissible. Prerequisites: Prior consent of instructor; approval of and preregistration with Honors College.

40099 Senior Honors Thesis/Project (1-10)

Thesis or creative project. "IP" grade permissible. Prerequisites: Honors senior standing; departmental and Honors consultation and approval prior to first semester of senior year; and formal proposal.

40197 Senior Colloquium (1-4)

One-semester course or two-semester sequence exploring interdisciplinary ideas and issues related to single theme, by means of readings, discussion, and individual papers and projects. "IP" grade permissible. Prerequisite: Honors or permission.

40297 Senior Colloquium (1-4)

See HONR 40197. "IP" grade permissible. Prerequisite: Honors or permission.

40497 Colloquium: International Study (1-4)

See HONR 30497. "IP" grade permissible. Prerequisite: Honors or permission.

HORTICULTURE TECHNOLOGY (HORT)**16001 Introduction to Horticulture (1)*

The history and development of the various horticultural and related industries throughout the United States and their relationship. Lecture 1 hour weekly; offered only at the Salem Campus. Prerequisite: None.

26001 Occupational Regulations and Safety (2)

Presentation of the basic standards, rules, safety regulations and laws pertaining to horticultural and related industries which will affect the work atmosphere. Lecture 2 hours weekly; offered only at the Salem Campus. Prerequisites: BSCI 16001 and HORT 16001.

26010 Arboriculture (3)

Basics of pruning and tree climbing techniques. This course covers the equipment and safe use of equipment commonly found in the arboricultural industry. Lecture 2 hours weekly; lab 3 hours weekly; offered only at the Salem Campus. Prerequisites: BSCI 16001 and HORT 16001 and CHEM 16001; corequisite HORT 26011.

26011 Cooperative Work Experience in Tree Care (3)

Cooperative work program through which the skills necessary to perform professionally in this occupation will be acquired. This course offered only at the Salem Campus. Requires a minimum of thirty hours per week of work experi-

ence. Not more than 9 semester hours in this or a combination of other work experience classes will be allowed. "SU" grading. "IP" permissible. Prerequisite: corequisite: HORT 26010.

26020 Landscape Management (3)

Basic principles of landscape management. This course covers equipment and safe use of equipment commonly found in the landscape industry. Lecture 2 hours weekly; lab 3 hours weekly; course offered only at the Salem Campus. Prerequisite: BSCI 16001, and HORT 16001, and CHEM 16001; corequisite: HORT 26021.

26021 Cooperative Work Experience in Landscape Management (3)

Cooperative work program through which the skills necessary to perform professionally in this occupation will be acquired. This course offered only at the Salem Campus. Requires a minimum of thirty hours per week of work experience. Not more than 9 semester hours in this or a combination of other work experience will be allowed. "SU" grading. "IP" permissible. Prerequisite: corequisite: HORT 26020.

26030 Turf Grass Management (3)

Basic principles of turf management. This course covers turf equipment and the safe use of equipment commonly found in the turf industry. Lecture 2 hours; lab 3 hours weekly; course offered only at the Salem Campus. Prerequisites: BSCI 16001, and HORT 16001, and CHEM 16001; corequisite: HORT 26031.

26031 Cooperative Work Experience in Turf Grass Management (3)

Cooperative work program through which the skills necessary to perform professionally in this occupation will be acquired. This course offered only at the Salem Campus. Requires a minimum of thirty hours per week of work experience. Not more than 9 semester hours in this or a combination of other work experience classes will be allowed. "SU" grading. "IP" permissible. Prerequisite: corequisite: HORT 26030.

HUMAN SERVICES TECHNOLOGY (HST)**11000 Introduction to Human Services (1)*

A survey of the role of human service technologists, 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 services agencies. Skill development in listening and provision of assistance to clients is emphasized. Prerequisite: HST 11001.

21001 Assessment of Client Needs (3)

An introduction to the evaluation of client needs and assessment of client condition. Prerequisite: HED 21050.

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.

21092 Internship in Human Services Technology I (3)

Supervised field experience in a human service agency (minimum twenty-one hours per week). Joint University-agency supervision. Prerequisite: Adviser approval.

21192 Internship in Human Services Technology II (3)

Continued supervised field experience in a human services agency (minimum twenty-one hours per week). Joint University-agency supervision. Prerequisite: HST 21092; controlled registration.

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: Permission.

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: High school algebra.

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 FMS 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: Permission.

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 or equivalent.

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.

22095 Special Topics (1-3)

Special topics in systems/industrial engineering technology. Repeated registration permitted. Prerequisite: Permission.

INSTRUCTIONAL TECHNOLOGY (ITEC)

27400 Principles of Educational Media (2)

Overview types of media including microcomputer courseware; utilization techniques; basic production skills and operating audio-visual equipment. This course includes 39 field/clinical hours. Prerequisites: Complete preprofessional block; concurrently with C&I 20000.

*Courses offered only at Regional Campuses.

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. Prerequisite: Permission.

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 37400.

47403 Instructional Design (3)

Enables participants to design instructional sequences based upon a systematic approach and incorporating media as integral components. Prerequisite: Junior standing.

47413 Digital Video in Education (3)

Design/production of instructional TV programming. Planning and scripting techniques. Hands-on experience with TV equipment. Students will digitize video footage, learn non-linear editing techniques, export productions to tape/cd. Prerequisite: None.

47427 Introduction to Microcomputers in Education (3)

An introductory course in computer use in education for school and alternative educational settings. It serves as a prerequisite for other computer courses. Prerequisite: Admission to professional education.

47430 Computer Applications in Education (3)

Preparation for use of computers effectively in variety of educational settings. Students should have some expertise with computers. Focus on advanced applications in education. Macintosh and Windows. Prerequisite: ITEC 47427 or equivalent skills.

47495 Special Topics: Educational Media (1-5)

Specialized offering in response to emerging or selected program needs in educational media and instructional design. Prerequisite: Permission.

47496 Individual Investigation in Educational Media (1-5)

Directed independent reading and/or research of special interest or need in student's program. Planned with and directed by a faculty member. Prerequisite: Permission.

INTEGRATED LIFE SCIENCES (ILS)

The courses listed below have been developed for the six-year B.S./M.D. Program offered in conjunction with the Northeastern Ohio Universities College of Medicine; enrollment is limited to students admitted to that program.

21091 Integrated Life Sciences Seminar I (2 Each)

(repeatable for a total of 4 credits) Seminar for first-year students in Kent/NEOU College of Medicine program to provide correlation of natural sciences, social sciences, and humanities with medical sciences. "S/U" grading. Prerequisite: Open only to first-year students admitted to NEOU College of Medicine.

22091 Integrated Life Sciences Seminar II (2 Each)

(repeatable for a total of 4 credits) Continuation of ILS 21091. "S/U" grading. Prerequisite: ILS 21091, open only to second-year students admitted to NEOU College of Medicine.

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: Controlled (ILS B.S./M.D. Program).

32592 Sociological Perspectives in Public Health (3)

Sociological phenomena of public health through research/theory and field research experience consisting of participatory and nonparticipatory experiences in areas related to medical practice but not associated with traditionally legitimated medical curricula. "IP" grade permissible. Prerequisite: Controlled (ILS B.S./M.D. Program).

40392 Medical Psychology Practicum (3)

Community mental health through community agency field placement. Observation and participation in interviewing, crisis intervention, and community consultation. Didactic exposure to community mental health theory. "IP" grade permissible. Prerequisite: Controlled (ILS B.S./M.D. Program).

42591 Medical Sociology Research Skills (2)

Formulation of community health-related research problem, theoretical concepts, techniques of data collection and analysis. Prerequisite: Controlled (ILS B.S./M.D. Program); Corequisite of ILS 42592.

42592 Medical Sociology Practicum (3)

Application of sociological research designs and methods to problems in medical sociology through field research and report on a community health-related research problem. "IP" grade permissible. Prerequisite: Controlled (ILS B.S./M.D. Program); Corequisite of ILS 42591.

49993 Human Values in Medicine (1-5)

Academic credit for successful completion of offerings of "Human Values in Medicine" program of Northeastern Ohio Universities College of Medicine. "S/U" grading. Elective credits only. Prerequisite: ILS or permission.

49997 Humanities Colloquium (1)

Theoretical and conceptual integration of various components of ILS humanities program. Fundamental issues in interrelationships of the various humanities and relationship of the humanities to other fields of learning. Prerequisite: Controlled (ILS B.S./M.D. Program).

ITALIAN (ITAL)

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

15201 Elementary Italian I (4)

An introduction to the Italian language in the context of Italian culture. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

15202 Elementary Italian II (4)

A continuation of the introduction to the Italian language in the context of Italian culture. Prerequisite: ITAL 15201 or equivalent. This course may be used to satisfy the Liberal Education Requirements.

15204 Basic Conversational Italian I (2)

Exposure to basic grammar and to current Italian useful to travelers. Not applicable to fulfillment of foreign language requirement. Prerequisite: Permission.

15205 Basic Conversational Italian II (2)

Continuation of ITAL 15204. Prerequisite: ITAL 15204 or permission.

25201 Intermediate Italian I (3)

Continued development of speaking, listening, reading, and writing skills using a variety of cultural materials. Prerequisite: ITAL 15202 or equivalent.

25202 Intermediate Italian II (3)

Continuation of ITAL 25201. Prerequisite: ITAL 25201 or equivalent.

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 approval. "IP" grade permissible. Prerequisite: One year of college language or equivalent.

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 or permission.

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 course graduation 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 twentieth century. Prerequisite: ITAL 35211. This course may be used to satisfy the writing-intensive course graduation 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 or permission.

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: Permission.

45093 Variable Title Workshop in Italian (1-6)

Workshops individually designed to provide instruction and training in specific areas of Italian studies. Prerequisite: Departmental permission.

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. Prerequisite: ITAL 25202; junior standing; permission.

45356 Dante (3)

This course studies Dante's *Divine Comedy* in its entirety (Inferno, Purgatory, and Paradise) in the original language. Prerequisite: Six hours of Italian at the 30000 level.

JOURNALISM AND MASS COMMUNICATION (JMC)**General****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 premajors, or majors. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

20003 Mediamorphosis (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: None.

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: Journalism and Mass Communication Major, Pre-major or minor, JMC 20003 or concurrent; or permission.

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, on-line searching and surveys. Prerequisite: JMC 20004, passage of JMC grammar/spelling/punctuation test.

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 w/flash. Disposable cameras not acceptable. Prerequisite: ART 23700; Journalism and Mass Communication major, minor, or permission.

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. Prerequisite: ART 23700 or 13003; Journalism and Mass Communication major, minor, or permission.

23001 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: ENG 10002. Special Fee: \$15.00/cr. hr.—subject to change.

30030 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. Prerequisite: JMC 20003, 20007; MATH 11011 or equivalent; Journalism and Mass Communication major, minor or permission.

40001 Fundamentals of Media Messages (3)

Working with messages for print, broadcast, electronic and new media outlets. Course may not be taken for credit, nor applied toward any requirements, by a JMC major. Prerequisites: None.

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. Prerequisite: JMC 40001 or Permission; Course may not be taken for credit, nor applied toward any requirements by a JMC major or minor without permission.

40003 Editing for Mass Media (3)

Theory and practice in copy editing, headline writing, picture selection and editing, newspaper design and layout, special sections, and management problems. Prerequisite: Course may not be taken for credit, nor applied toward any requirements by a JMC major or minor without permission.

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: JMC 20004; JMC major or minor, and junior status; or permission; passage of JMC grammar/spelling/punctuation test.

40007 Reviewing the Arts (2)

Reviewing and criticizing of performing, visual, and literary arts. Emphasis on books, film, TV, and theatre. Prerequisites: JMC 20004 or 26001; upper-division standing.

40008 History of American Mass Communication (3)

Evolution of the American mass communication/media from beginning to present day. Prerequisite: Upper-division 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: Upper-division standing.

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: JMC major or minor and senior standing with at least 18 hours in JMC courses, including JMC 20004; or permission; passage of JMC grammar/spelling/punctuation test. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

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: JMC major and senior standing, or permission.

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: JMC 20004 or 26001; JMC 30034; or permission.

40092 Internship (1)

Experience in a professional setting under professional supervision in student's field of specialization. "S/U" grading. "IP" grade permissible. May be repeated once. Prerequisites: Varies by concentration. See Adviser.

40095 Special Topics (1-3)

Selected topics of special interest not covered in depth in existing courses; offered as resources permit. Prerequisite: Permission.

40096 Individual Projects in Mass Communications (1-3)

Individual research projects in mass communications. Letter grades and "IP" permissible. Prerequisites: Upper-division standing and permission.

40192 Radio-Television Internship (1)

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. May be repeated once. Prerequisites: Varies by concentration. See adviser.

40193 Variable Title Workshop in JMC (1-3)

Workshop setting dealing with topics in mass communications. Prerequisite: Permission.

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' advisers and study directors. "IP" grade permissible. Prerequisites: Upper-division standing and permission.

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: JMC 20004; JMC 30034 or permission; passage of JMC grammar/spelling/punctuation test.

46001 Information Graphics (3)

(cross-listed with ART 43701) Introduction to shapes, color, type, and combinations of these for computer-designed news graphics: maps, charts, graphs, and diagrams. Prerequisite: JMC 20004 and 20007; ART 13003 or 27300; ART 27301 or equivalent. JMC major, minor, or permission: passage of JMC grammar/spelling/punctuation test.

*Advertising**31001 Principles of Advertising (3)*

Advertising history, purposes, techniques, media, and research; analysis of functions of advertising organizations. Prerequisite: None.

31002 Advertising Copywriting (3)

Examination and practice in various forms of advertising copy writing, and their applications. Prerequisite: JMC 20004; JMC 31001; JMC major, minor, or permission; passage of JMC grammar/spelling/punctuation test.

31003 Advertising Media Planning (3)

Analysis, selection, and scheduling of advertising media. Examination of advertising research technique and application. Prerequisite: JMC 20004; JMC 31001; JMC major, minor, or permission; passage of JMC grammar/spelling/punctuation test.

41002 Advanced Advertising Copywriting (3)

Advanced copywriting projects in print advertising and corporate communications and execution of the entire print advertising campaigns. Prerequisites: JMC 31002 and 31003.

41004 Broadcast Copywriting (3)

Application of advertising principles to broadcast media. Emphasis on commercial copy and client relationships. Prerequisites: JMC 30004 or 31002; JMC major, minor; or permission.

41005 Advertising Campaigns (3)

Analysis of the planning, financing, and execution of an advertising campaign through case study methods. Prerequisites: JMC 20007, 31002 and 31003; JMC major, minor or permission. Special Fee: \$10.00/cr.hr.—subject to change.

41081 Advertising Practices (3)

The study of current advertising practices and issues. Prerequisites: JMC 31002 and JMC 31003.

*Broadcast News**26008 Broadcast Beat Reporting (3)*

Writing news, developing sources and beats, meeting deadlines as they relate to electronic media. Includes reporting campus news for daily broadcasts. Prerequisites: JMC 26001. Special Fee: \$3.33/cr. hr.—subject to change.

36000 Producing and Electronic Editing (3)

Introduction to writing content and program designing for electronic news and public affairs programs. Prerequisite: JMC 26008.

46052 Advanced Broadcast News Practices (3)

Study of investigative news stories, newsroom operations, editing and producing broadcast news programs. Advanced projects in broadcast news. Prerequisites: JMC 26008. Special Fee: \$3.33/cr. hr.—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: JMC 43043 and 45051 or permission. Special Fee: \$5.00/cr. hr.—subject to change.

Electronic Media*30004 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. Prerequisite: JMC 20004; JMC 20007; JMC major, minor, or permission; passage of JMC grammar/ spelling/punctuation test.

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. Prerequisite: JMC 20004; Journalism and Mass Communication major, minor, or permission; passage of JMC grammar/spelling/punctuation test.

33024 Performance for Electronic Media (3)

Development of effective communication techniques in performance situations for electronic media. Prerequisites: JMC 20003 and 33031 (may be taken concurrently), or permission. Special Fee: \$6.66/cr. hr.—subject to change.

33031 Basic Electronic Media Production (3)

Theoretical basis and practical application of program production for both audio and video situations. Two hours lecture/discussion; two hour lab. Prerequisite: JMC 20003, 22000, and 22002; and ART 23700. Special Fee: \$6.66/cr. hr.—subject to change.

33036 Basic Media Engineering (3)

Introduction to basic electronic media technology and systems, providing knowledge and vocabulary to allow communication w/broadcast engineers. Overview of radio/TV operations and legal viewpoint. Prep. for SBE operators cert. exam. Prerequisites: MATH 11011 or equivalent; JMC 33031; JMC major, minor, or permission.

33092 Radio-Television Operations (1-3)

Performance of assigned activities in radio or television under faculty supervision. "S/U" grading. May be repeated for up to 3 hours. Prerequisites: JMC 20003; Sophomore standing, and permission.

34038 Media Sales and Promotion (3)

Selling techniques in electronic and print media; sales policies, procedures; rate card structure, sales proposals, and related promotional aspects. Prerequisite: JMC 30034 or 31003; JMC major, minor, or permission.

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: JMC 30034.

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: JMC 20007 and 30004; JMC major, minor, or permission.

43032 Audio Studio Production (3)

Production of in-studio audio programming units, with lab unit required as part of course. Prerequisites: JMC 20007, 30004, and 33031; JMC major, minor, or permission. Special Fee: \$6.66/cr. hr.—subject to change.

43033 Audio Field Production (3)

A study of the theory and craft of audio field production, providing analysis and practice of remote information gathering techniques and music recording. Prerequisite: JMC 20007, 30004, and 33031; JMC major, minor, or permission. Special Fee: \$6.66/cr. hr.—subject to change.

43042 Video Studio Production (3)

Study of producing and directing various types of video studio programs. Two hours lecture, 2 hours laboratory. Prerequisites: JMC 20007, 30004, and 33031; JMC major, minor, or permission. Special Fee: \$10.00/cr. hr.—subject to change.

43043 Video Field Production (3)

Producing programs and packages with portable video equipment outside the studio. Editing program material. Two hours lecture/3 hours laboratory. Prerequisites: JMC 20007, 30004, and 33031; JMC major, minor, or permission. Special Fee: \$5.00/cr. hr.—subject to change.

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: JMC 30004; JMC 43042 or 43043; JMC major, minor, or permission. Special Fee: \$16.66/cr. hr.—subject to change.

Honors*40099 Senior Honors Project (2-4)*

Thesis or other independent study project in mass communication. Prerequisite: Open only to JMC majors admitted to honors.

News

26001 *Newswriting (4)*

Theory and practice in writing basic print and electronic news and feature stories. Prerequisite: JMC 20004; 22002; 20007 (may be taken concurrently); passage of JMC grammar/spelling/punctuation test; JMC major, minor, or permission.

26007 *Print Beat Reporting (3)*

Gathering and writing news: interviewing techniques, cultivating sources, developing beats, meeting deadlines. Includes campus reporting for Daily Kent Stater. Prerequisite: JMC 26001.

36005 *Copyediting (3)*

Improving the writing of other journalists and writing headlines. Intensive review of AP Style and grammar. Prerequisite: JMC 26001.

40004 *Computer Assisted Reporting (3)*

Computer analysis of large data sets, focusing on government, court, police records, for preparation of news stories; basics of on-line searching; software and databases. Prerequisite: JMC 26007 or 26008; or permission. Special Fee: \$5.00/cr. hr.—subject to change.

40005 *Feature Writing (3)*

Researching, writing, and placement of feature stories in publications. Prerequisites: JMC 26007; and 46016 for magazine majors.

40012 *On-Line Journalism (3)*

In-depth study/analysis of sources for working journalists. Practice on-line search, source evaluation, and incorporating on-line information into media apps. Data sources: Internet, WWW, government, and academic sources. Data retrieval methods introduced. Prerequisite: JMC 26007 or 26008.

46000 *Newspaper Design (3)*

Design of newspapers from small inside pages to elaborate feature pages. News judgment. Basic information graphics and photo editing. Prerequisites: JMC 26001; and ART 23701.

46006 *Editorial Writing (3)*

Structures and purpose of editorial and column writing; study of editorial section of newspaper; practice in writing editorials. Prerequisites: JMC 26007 or 26008; JMC major, minor, or permission.

46007 *Reporting in Depth (3)*

Techniques involved in researching, interviewing, and writing in-depth news articles and analyses. Prerequisites: JMC 26007 or 26008; and JMC 46009; JMC major, minor, or permission.

46009 *Reporting Public Affairs (3)*

Instruction and practice in reporting all areas of public affairs, including government and the courts. Use of precision journalism techniques. Prerequisites: JMC 26007 or 26008; and JMC 36000 or 36005; JMC major, minor, or permission.

46016 *Magazine Publishing (3)*

Overview of magazine publishing—editorial, advertising, circulation, and production. Analysis of magazines. Prerequisite: JMC major, minor, or permission; and Junior standing.

46020 *Magazine Design (3)*

Marriage of words and visuals for designing magazine layouts and covers in desktop publishing. Prerequisites: For Magazine students, ART 23701, JMC 22000, 22002, 26007, 36005, 46016. Others by permission.

46021 *Magazine Writing and Editing (3)*

Research, interviewing, writing, and marketing of major magazine articles. Also editing techniques for magazines. Prerequisites: JMC 36005, 40005, and 46016.

Photography

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: \$5.00/cr. hr.—subject to change.

22001 *Photography (3)*

Basic camera and darkroom techniques to provide a better understanding of photography as a creative and journalistic skill. Prerequisite: Permission. Special Fee: \$5.00/cr. hr.—subject to change.

32001 *Photojournalism I (3)*

Production of photographs for newspapers, magazines, and on-line news media. A laboratory course emphasizing color and black-and-white photography. Prerequisite: JMC 22001 and 20004; ART 13003, 22006, and 22007; passage of JMC grammar/spelling/punctuation test; JMC major, minor, or permission.

32002 *Photojournalism II (3)*

Continuation of JMC 32001. Advanced news and feature photography for newspapers, magazines, and on-line, including a collaborative project. May be repeated once. Prerequisites: JMC 22002 and 32001. Special Fee: \$5.00/cr. hr.—subject to change.

32003 *Photo Technology (3)*

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; JMC major or minor, or permission. Minimum Fee: \$6.66/cr. hr.—subject to change.

32004 Advanced Photography (3)

Use of specialized equipment, materials, and techniques. Student furnishes own view camera. Special equipment furnished. Prerequisites: JMC 22001; JMC major, minor, or permission. Special Fee: \$10.00/cr. hr.—subject to change.

32008 Photo-Design Techniques (3)

Use of unusual photographic materials and techniques in design of images for many purposes. Prerequisite: JMC 22001. Special Fee: \$10.00/cr. hr.—subject to change.

42005 Color Photography (3)

Nature of color transparency and negative films. Student produces transparencies and prints for assignments. Photojournalism majors must have a 35mm camera; photo-illustration majors must have a 4x5 camera. Prerequisites: JMC 32001 or 32004; JMC major or permission. Special Fee: \$4.00/cr. hr. plus cost of film and processing—subject to change.

42007 Photo-Illustration Techniques (3)

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; JMC major. Special Fee: Minimum of \$6.66/cr. hr.—subject to change.

42008 Advanced Photojournalism (3)

Discussion of contemporary photojournalists and issues. Production of photo-documentary, multimedia, and illustrations appropriate to photojournalism. Senior portfolio review. Prerequisites: JMC 26007 and 32002. Special Fee: \$5.00/cr. hr.—subject to change.

42009 Fashion Photography (3)

Instruction in studio lighting, filters, special effects. Emphasis on editorial and advertising fashion photography. Studio and location assignments. Prerequisites: JMC 32001 or 32004; JMC 42005. Special Fee: \$8.33/cr. hr.—subject to change.

42092 Photographic Practicum (1-3)

(repeatable for a total of 10 hours) Individual or group investigation into student selected areas of photographic field. Prerequisite: Upper-division standing or permission. Special Fee: \$7.50/cr. hr.—subject to change.

Public Relations*38001 Principles of Public Relations (3)*

Explores strategic role and function of public relations in business, non profit, public institutions, and society. Covers public relations practice from development to present. Prerequisite: None. Public relations majors and minors, take JMC 38002 concurrently.

38002 Strategic Planning for Public Relations (1)

Using management-by-objective principles, students research and develop a comprehensive public relations plan for a real-world client. Best when taken concurrent with JMC 38001. Required of PR majors and minors, but open to all. Corequisite: JMC 38001.

48001 Public Relations Messages: Print (3)

Planning and preparation of printed public relations messages, including messages for the print mass media and a variety of organizational and institutional printed materials. Prerequisites: JMC 26001; and JMC major or permission.

48002 Public Relations Messages: Broadcast and New Media (3)

Planning and preparation of audio-visual public relations messages, including visual support for speeches as well as messages for radio, television, and the Internet. Prerequisites: ART 23700; JMC 26001; JMC major; or permission.

48006 Public Relations Publications (3)

Fundamentals in producing business publications including house journals, newsletters, pamphlets, brochures, bulletins, and bulletin boards. Prerequisites: ART 23700 and 23701; JMC 26001; JMC major, minor, or permission.

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: Upper-division standing.

48091 Public Relations Seminar (3)

In-depth study of specialized areas of public relations in agencies, corporations, and nonprofit organizations using expertise of professional practitioners as speakers, advisers, counselors. Prerequisites: JMC 38001, 38002, and two of these: 48001, 48002, and 48006.

Teaching*47003 Teaching High School Journalism (3)*

Methods and materials for teaching journalism in high school. Prerequisites: Upper-division standing and permission of instructor.

47005 Advanced Journalism Publication (3)

Group study of problems posed by advisers enrolled in the course. Prerequisite: JMC 47003 or permission.

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, the environmental consequences of industrial expansion, health care, consumerism, and foreign competition. Prerequisite: None.

LABORATORY TECHNOLOGY (LABT)***11001 Laboratory Safety (3)**

Investigation of standards for laboratory safety including material safety data sheets, chemical storage and handling, and preparation of laboratory chemical hygiene plan. Prerequisite: None.

11002 Laboratory Quality Assurance and Quality Control (4)

Investigation of quality assurance and quality control procedures related to sampling and analysis in environmental, industrial, and chemical laboratories. Prerequisite: None.

11003 Laboratory Information Management Systems (2)

Introduces laboratory information management systems (LIMS), designs, implementation, importance to lab QA/QC, and commercially available systems. Laboratory work to emphasize utilization of commercially available systems. Prerequisite: COMT 11000 and LABT 11002.

20010 Industrial Hygiene Sampling and Testing (2)

Sampling and testing for workplace air monitoring, different types of sample media, sample storage, and sample preparation, introduction to OSHA, NIOSH, and ASTM procedures. Prerequisites: CHEM 10053, LABT 11002, and 20008.

21001 Introduction to Industrial Chemical Processes (2)

Introduction to industrial chemistry and chemical processes. Study of how commercial chemicals are manufactured from raw material to end product. Prerequisite: None.

21092 Internship in Laboratory Technology (1-2)

Supervised field experience in an environmental, industrial, or chemical laboratory. Prerequisite: Permission.

21095 Special Topics in Laboratory Technology (1-3)

(repeatable for a total of 6 hours) Specialized instruction oriented primarily to the application of current technology developed for testing laboratories. This course is repeatable as the specific topic will vary. Prerequisite: Permission.

21096 Individual Investigation in Laboratory Technology (1-3)

Individual investigation in laboratory technology. Open to Laboratory Technology majors. Prerequisite: Permission.

LATIN (LAT)

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

16201 Elementary Latin I (4)

An introduction to the classical Latin language in the context of ancient Roman culture. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

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 or equivalent. This course may be used to satisfy the Liberal Education Requirements.

26201 Intermediate Latin I: Readings (3)

Excerpts from Latin literature with emphasis on translation into English. Prerequisite: LAT 16202 or equivalent.

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 or equivalent.

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 or equivalent.

36211 Latin Prose Composition (3)

Analysis of prose models; writing of connected Latin prose with attention to the Latin idiom. Prerequisite: LAT 26202 or equivalent.

36351 Latin Comedy (3)

Characteristics and history of Latin comedy; readings from Plautus and Terence. Prerequisite: LAT 36170 or 36171.

36371 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.

36372 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.

36373 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.

40393 Variable Title Workshop (1-6)

Workshops individually designed to provide instruction and training in Latin studies. Prerequisite: Departmental permission.

46095 Selected Topics in Latin (3)

Topic announced in the *Schedule of Classes*. Prerequisite: LAT 36170 and 36171 or permission.

46096 Individual Investigation (1-3)

Investigation of problems in Latin literature or linguistics. "IP" grading permissible. Prerequisite: Departmental permission.

46352 Elegiac Poets (3)

Selections from Tibullus, Propertius, and Ovid. Prerequisite: LAT 36170 and 36171 or permission.

46374 Juvenal's Satires and Martial's Epigrams (3)

General considerations of Roman satire. Prerequisite: LAT 36170 and 36171 or permission.

46375 Lucretius (3)

De Rerum Natura. Prerequisite: LAT 36170 and 36171 or permission.

LEGAL ASSISTING TECHNOLOGY (LEGT)**18000 Introduction to Paralegal Studies (3)*

(cross-listed with CJST 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. Course offered at the East Liverpool Campus only. Prerequisite: None.

18001 Legal Research and Writing (3)

(cross-listed with CJST 28001) In-depth analysis of the legal research process, 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 CJST 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 or permission.

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 or permission.

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.

21092 Internship (2)

Supervised field experience. This experience requires a minimum of fourteen hours per week for unpaid work experiences or twenty hours per week for employment with pay. Course offered at the East Liverpool Campus only. Prerequisite: LEGT 28006 and permission; corequisite: LEGT 28008.

27091 Special Topics in Paralegal Studies (2-3)

(cross-listed with CJST 27091) (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 or permission.

28004 Principles and Practice of Litigation (3)

(cross-listed with CJST 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 or permission

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.

28006 Advanced Legal Research and Writing (3)

Introduction to case analysis and preparation of argumentative memorandum. Including writing of factual memorandum, file summaries, and advocacy letters. Course offered at the East Liverpool Campus only. Prerequisite: LEGT 18001.

28007 Estate and Probate Administration (3)

(cross-listed with CJST 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. Course offered at the East Liverpool Campus only. Prerequisite: LEGT 28006.

28008 Professional Development for Paralegals (1)

Exploration and discussion of the paralegal field. Employment opportunities and responsibilities. Professional organizations and business etiquette. Prerequisite: LEGT 18001 and permission.

LEISURE STUDIES (LEST)**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.

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: LEST 16000.

26081 Outdoor/Environmental Education (3)

Foundations of the outdoor/environmental education movement, ecological concepts and relationships; environmental ethics and issues; and examination of outdoor/environmental programs in recreational and school settings. Prerequisite: None.

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: LEST 26030, or permission.

36040 Special Populations in Therapeutic Recreation (3)

Characteristics of special populations and implications for therapeutic recreation. Prerequisite: LEST 26030.

36060 Commercial Recreation and Tourism (3)

Principles of commercial recreation and tourism, including entrepreneurship, economic concepts of the for-profit recreation industries, and management skills of commercial recreation and tourism services. Prerequisite: LEST 16000 or permission.

36075 The Process of Program Planning for Leisure Services (3)

A systems approach to recreational planning based on human needs, goal setting procedures, evaluation analysis of outcomes. Prerequisites: LEST 26030 or permission.

36080 Principles of Therapeutic Recreation (3)

Therapeutic recreation practices including use of treatment, leisure education, and recreation services to help people with illnesses, disabilities, and other conditions to develop and use their leisure in ways that enhance their well being. Prerequisites: LEST 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: LEST 26030 and 26081.

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 a total of 3 hours) A 60-hour field experience in a therapeutic recreation setting. Must be approved by instructor prior to registration. "S/U" grading. "IP" grading permissible. Prerequisite: LEST 16000, permission, and Leisure Studies major or minor.

36192 Practicum in Leisure Services Management (1)

(repeatable for a total of 3 hours) A 60-hour field experience in a leisure services setting. Must be approved by the instructor prior to registration. "S/U" grading. "IP" grading permissible. Prerequisite: LEST 16000, permission, and Leisure Studies major or minor.

46000 Tourism Development and Recreational Travel (3)

Investigation of travel and tourism development using an interdisciplinary social science approach. Prerequisite: LEST 36060 or permission.

46030 Dynamics of Leisure Behavior (3)

Analysis of leisure behavior through an examination of psychological theories and research. Prerequisite: LEST 36040 and 36075, PEP 25068 or PSYC 21621, or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

46040 Therapeutic Recreation Program Techniques (3)

Techniques employed in program planning, including activity analysis, assessment, and documentation. Integration of theory into program plans used in TR for treatment, leisure education services for people with illnesses or disabilities. Prerequisite: LEST 36080.

46041 Management of Therapeutic Recreation Services (3)

Techniques, approaches, procedures, and practices in the provision of therapeutic recreation services. Prerequisite: LEST 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 will be examined. Prerequisites: LEST 36040, 36075, 36092 or 36192, or permission.

46070 Resources for Leisure Settings (3)

Understanding the relationship between recreation resources (e.g. land and facilities) and the people who use them. This includes the design and management of public and commercial recreation places. Prerequisite: LEST 36040 and 36075, or permission.

46071 Maintenance and Operation of Areas and Facilities (3)

A systems approach for the effective maintenance and operation of areas and facilities. Prerequisite: LEST 36040 and 36075, or permission.

46080 Leisure and Law (3)

Designed to alert potential recreational professionals to the litigious environment prevalent in the United States, increase awareness of their legal responsibility and risk management strategies. Prerequisites: LEST 36075, and 36092 or 36192, or permission.

46090 Internship Seminar (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" grading permissible. Prerequisites: Junior standing as a Leisure Studies major, LEST 36094 or 36192.

46091 Selected Topics in Recreation (1-3)

(repeatable for a total of 6 hours) Selected topics dependent upon interest. Prerequisite: None.

46092 Internship in Recreation (6-12)

Supervised full-time experience providing knowledge of overall agency operation in approved leisure setting. Fifty (50) contact hours per credit hour. "S/U" grading. "IP" grade permissible. Prerequisites: Senior standing, LEST 46090, and permission.

46096 Individual Investigation in Recreation (1-3)

(repeatable for a total of 6 hours) "IP" grade permissible. Prerequisites: Junior standing and permission.

LIBRARY SCIENCE (LSCI)**40693 Variable Title Workshop in Library Science (1-3)**

Prerequisite: Junior or senior standing and permission.

41095 Selected Topics in Library Science (1-3)

Offered irregularly as resources and opportunities permit. Topics will be announced in *Schedule of Classes*. Prerequisite: Permission.

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)

Lathe and mill computer numerical control (CNC) programming: conversational, M & G codes. Manual data input and off-line programming: offsets, cutter compensation, linear, circular, and helical interpolation. Prerequisite: EERT 22013, and MERT 12000 and 12004.

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: MFGT 14001, 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

23001 Computer - Aided Manufacturing (3)

Theory and application of computer-aided manufacturing. Generation of CNC code using CAM applications, both from CAD drawings and directly from CAM package. Prerequisites: MFGT 13001 and MERT 12001.

23002 Advanced Computer - Aided Manufacturing (3)

An advanced class in computer-aided manufacturing. Electrical Discharge Machining (EDM) program applications. Emphasis will be placed on industrial projects. Prerequisite: MFGT 23001.

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, pilotage, 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: Completion of 21 technical credit hours.

21050 Merchandising Boats and Service (3)

Basic concepts of merchandising including inventory, assortment planning, pricing, show room and service facilities; location factors, design, layout, and space utilization; advertising and other promotion functions. Prerequisite: MROT 11000 and BMRT 21050 or permission.

MARKETING (MKTG)

NOTE 1: Registration in any 30000- or 40000-level marketing course is restricted to the following groups:

1. Officially declared upper-division business administration majors and minors.
2. Officially declared nonbusiness majors with a minimum 60 semester hours completed and a minimum 2.00 cumulative grade point average. Registration priority is extended to those majors that specifically require 30000- and 40000-level marketing courses.
3. Officially declared prebusiness majors (with a minimum 60 semester hours completed and a minimum 2.25 cumulative grade point average) registering for upper division business courses.

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

35010 Marketing (3)

Functions, institutions, and basic problems in marketing goods and services from viewpoint of manager of business firm operating within social, economics, and legal environment. Prerequisites: ECON 22060 and 22061; ECON 22061 can be taken concurrently with MKTG 35010.

35025 Business Logistics Management (3)

Examination of logistics systems and management, including coverage of inventory, warehousing, traffic, materials handling, packaging, order processing, and customer service levels. Prerequisite: MKTG 35010; see Notes 1 and 2.

35035 Buyer Behavior (3)

Consumer decision-making processes and psychological, sociological, and cultural factors influencing them. Analysis of marketing mix strategies and policies in a behavioral context. Prerequisite: MKTG 35010; see Notes 1 and 2.

35050 Marketing Research (3)

Introduction to survey research and experimental design, with emphasis on decision making, problem definition, secondary data, sampling, questionnaire design, and statistical analysis. Prerequisites: MKTG 35010 and ADMS 24055; see Notes 1 and 2.

40093 Variable Title Workshop in Marketing (1-6)

Special topics in marketing. Hours credit depend on scope of project. Prerequisite: Controlled; see Notes 1 and 2.

45045 Advertising and Promotion Management (3)

Advertising, public relations, and promotion are systematically examined in terms of planning, executing, and evaluating marketing programs. Prerequisite: MKTG 35010; see Notes 1 and 2.

45046 Industrial Sales Management (3)

Analysis, from management perspective, of internal and external environments affecting the industrial sales manager's decisions. Prerequisite: MKTG 35010; see Notes 1 and 2.

45060 International Marketing (3)

Examination of international marketing in terms of exporting and importing. Emphasizes differences among markets because of geography, politics, economics, culture, commercial policy, and trade practices. Prerequisite: MKTG 35010; see Notes 1 and 2.

45071 Purchasing Management (3)

Provides managerial approach to organization, planning, and execution of purchasing function. Embodies treatment of systems and analytical tools utilized in making sound purchasing decisions. Prerequisite: MKTG 35010; see Notes 1 and 2.

45082 Retail Management (3)

Survey of field of retailing. Analysis of decisions necessary for store location, layout, and equipment. Managerial decision concerned with buying merchandise and merchandise control. Problems dealing with opening new firm. Prerequisite: MKTG 35010; see Notes 1 and 2.

45084 Marketing Policies and Strategies (3)

Capstone course in marketing dealing with marketing policies and strategies with emphasis on managerial decision-making Harvard case approach. Prerequisites: Senior standing; MKTG 35010, 35035, 35050; see Notes 1 and 2. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

45091 Marketing Seminar (3)

Current problems in marketing. Certain sections of this variable topic seminar may be controlled or have prerequisites. See current schedule of classes. Prerequisites: MKTG 35010.

45096 Individual Investigation in Marketing (3)

Independent investigation of appropriate problem undertaken by superior student majoring in marketing. Prerequisite: Controlled; see Notes 1 and 2.

45292 Marketing Internship (3)

Preparation of research report concurrent with on-the-job experience with cooperating business and other organizations. Prerequisite: Controlled; see Notes 1 and 2.

MATHEMATICS (MATH)

For placement in College Mathematics courses see "Arts and Sciences — Mathematics and Logic Requirement — Placement."

Due to the sequential nature of the study of mathematics, once students have received credit for, or established proficiency at, one level in a sequence of mathematics coursework, they are not allowed to receive academic credit toward graduation for a prior course in the sequence or for a course in a lower sequence. Students with questions concerning the applicability of such sequential coursework should consult the Department of Mathematics and Computer Science.

10005 Introduction to College Mathematics (3)

Includes number systems, exponents, polynomials, the Cartesian coordinate system, linear and quadratic equations, and inequalities. Prerequisites: Appropriate placement test score or grade of "C" or better in A&S 10004; no previous mathematics courses.

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. Prerequisite: MATH 10005 or appropriate placement test score.

11011 College Algebra (4)

Level of difficulty between that of MATH 10005 and 12001. Includes factoring, equations, inequalities, functions, graphs, exponential and logarithmic functions. Prerequisites: MATH 10005 or appropriate placement test score; and no credit for 12001. This course may be used to satisfy the Liberal Education Requirements.

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. Prerequisite: MATH 11011, or 12001, or appropriate placement test score. This course may be used to satisfy the Liberal Education Requirements.

11022 Trigonometry (2)

Solution of triangles, trigonometric equations, and identities. Prerequisite: MATH 11011 or appropriate placement test score and no credit for 12001.

12001 Algebra and Trigonometry (4)

Includes topics covered in MATH 11011 and 11022. Prerequisites: Appropriate placement test score and no credit for 11011 or 11022. This course may be used to satisfy the Liberal Education Requirements.

12002 Analytic Geometry and Calculus I (5)

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. Prerequisite: MATH 12001 or 11022 or appropriate placement test score. This course may be used to satisfy the Liberal Education Requirements.

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.

12021 CALCULUS FOR LIFE SCIENCES (4)

Differential and integral calculus using examples and problems in life sciences. Prerequisite: ILS major or permission.

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 systems and its sub-systems, open sentences, numeration systems, and some number theory concepts. Prerequisite: MATH 10005 or appropriate placement test score. This course may be used to satisfy the Liberal Education Requirements.

14002 Basic Mathematical Concepts II (3)

Basic concepts of modular arithmetics, probability, statistics, and geometry. Prerequisite: MATH 14001. This course may be used to satisfy the Liberal Education Requirements.

19001 Technical Mathematics I (4)*

Introduction to geometry, algebra, and trigonometry. For students in the engineering technologies. Prerequisite: Three years of high school math or equivalent.

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 lab experience in providing explanations of mathematical concepts. May be repeated in a different area. Prerequisite: Permission for one of the areas: algebra, trigonometry, mathematics education, or calculus.

20095 Special Topics in Mathematics (1-5)

Various special courses will be announced in the *Schedule of Classes* under this course number with different section numbers. Repeated registration permitted. Prerequisite: Permission.

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: ADMS 24002.

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.

30011 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: MATH 11011 or 12001.

31011 Discrete Mathematics (3)

(cross-listed with CS 31011) 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 and 21001 (concurrent registration in MATH 21001 allowed).

31045 Formal Logic (3)

(cross-listed with PHIL 31045) See Department of Philosophy. Cannot be counted as mathematics credit toward mathematics degree. Prerequisite: None.

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, Baye'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 Kolmogorov-Smirnov type. Prerequisite: MATH 40012.

40041 Sampling, Design, and Analysis of Experiments (3)

Normal equations and the F-statistic, analysis of variance, one-way and multi-way layouts, randomization, complete and incomplete designs, analysis of covariance. Prerequisites: MATH 21001 and 40012.

40051 Topics in Probability Theory and Stochastic Processes (3)

Topics from random walks, renewal theory, Markov processes, branching processes and birth-death processes. Brownian motion and other simple processes with applications. Prerequisite: MATH 40011.

40093 Variable Title Workshop in Mathematics (1-6)

Studies special topics in mathematics. Not acceptable for credit toward a major or minor in math without approval of student's adviser. Prerequisite: Permission.

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 course graduation requirement with approval of major department.

*Courses offered only at Regional Campuses.

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, constructability. Prerequisite: MATH 41001 or permission. This course may be used to satisfy the writing-intensive course graduation 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 or permission.

41045 Metalogic (3)

(cross-listed with PHIL 41045) May be counted toward B.A. or B.S. mathematics major. See PHIL 41045 for description. Prerequisite: PHIL 31045 or permission.

42001 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 or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

42002 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 graduation requirement with approval of major department.

42011 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 or permission.

42021 Graph Theory and Combinatorics (3)

Fundamentals and applications of combinatorial mathematics. Topics include traversability, colorability, networks, inclusion and exclusion, matching, and designs. Prerequisites: MATH 21001 and 12003 or permission.

42031 Mathematical Models (3)

Design and comparison of mathematical models. Numerous models from the physical, social, life, and management sciences are examined. Includes graphic methods and optimization techniques. Prerequisites: MATH 21001, 22005, or permission.

42044 Applied Analysis I (4)

Introduction to ordinary differential equations and selected topics from vector algebra and calculus including the theorems of Green, Stokes, and Gauss. Prerequisites: MATH 22005 and MATH 21001.

42045 Applied Analysis II (4)

Introduction to Fourier series and partial differential equations including the study of the wave, heat, and potential equations of mathematical physics. Prerequisite: MATH 42044.

42048 Introduction to Complex Variables (3)

Algebra of complex numbers, analytic functions, mappings, Cauchy integral theory, residue theory, and applications. Prerequisite: MATH 22005.

42201 Numerical Computing I (3)

(cross-listed with CS 42201) Numerical algorithms, recursion formulas, error analysis, interpolation, least squares approximation, data reduction, numerical linear algebra, solution of nonlinear equations, methods implemented using algorithmic programming language. Prerequisites: CS 10061 and MATH 12003, 21001.

42202 Numerical Computing II (3)

(cross-listed with CS 42202) Difference operators, difference equations, numerical integration and differentiation, extrapolation methods. Numerical solution of initial, boundary, and eigenvalue problems for ordinary and partial differential equations. Prerequisites: MATH/CS 42201 and MATH 42044. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

45011 Differential Geometry (3)

Analytic and metric differential geometry of curves and surfaces. Prerequisite: MATH 22005.

45021 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 permission of instructor.

45022 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 or permission.

46001 Elementary Topology (3)

Metric spaces, introduction to topological spaces, separation axioms. Prerequisite: MATH 22005.

47001 Mathematical Logic and Set Theory (3)

Axiomatic set theory, relations, development of real numbers, cardinal numbers, axiom of choice. Prerequisite: Permission.

47011 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 or permission.

47021 History of Mathematics (3)

Survey from Babylonian and Egyptian mathematics to twentieth century mathematics with emphasis on the development of algebra, geometry, calculus, number theory. Prerequisite: Three hours of mathematics beyond 22005 or permission.

49995 Selected Topics in Mathematics and Its Applications (1-4)

(repeated registration permitted) Various special courses will be announced in the *Schedule of Classes* under this course number with different section numbers. Prerequisite: Permission.

49996 Individual Study (1-4)

Prerequisite: Permission of instructor.

49998 Research (1-15)

Prerequisite: Permission.

MECHANICAL ENGINEERING AND RELATED TECHNOLOGIES (MERT)*

12000 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.

12001 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.

12004 Manufacturing Processes (3)

Basic principles of machine tools and machining processes including metal cutting, shaping, planing, drilling, turning, and milling. Computer numerical control, special materials, and processes. Prerequisite: None.

12005 Properties of Materials (3)

Nature of pure metals and alloys, properties of ferrous and nonferrous metals and nonmetallic materials. Casting, heat treating, forming, welding, and related processes.

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: Permission.

22002 Statics and Strength of Materials (5)

Force systems. Equilibrium, structures, and friction. Simple stresses, material properties, stress/strain, and deformation relationships. Thermal expansion and stress. Centroids. Moment of Inertia. Shear and bending moment in beams, beam design. Prerequisite: MATH 19001; corequisite: MATH 19002.

22003 Computer-Aided Tool Design (3)

Tool design practices and procedures including materials, commercial standards, cutting tools, drill jigs, fixtures, dies, and gauges using computer-aided design. Prerequisite: MERT 12001.

22004 Mechanics and Machine Design (5)

Machine 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, 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, energy equation, turbulent and laminar flow, industrial hydraulics, and equipment. Prerequisite: None.

*Courses offered only at Regional Campuses.

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.

22095 Special Topics (1-3)

Special topics in mechanical engineering technology. Repeated registration permitted. Prerequisite: Permission.

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 development of programs and curricula that are culturally and developmentally responsive to the needs of early adolescents. Prerequisite: FCS 41095 Special Topics: Early Adolescence.

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. Prerequisite: EDPF 29525, MATH 14001 and 14002 or MATH 12001 and 12002.

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: EDPF 29525.

30003 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: EDPF 29525.

30004 Reading and Writing in Middle Childhood (3)

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: EDPF 29525.

30092 Field Experience II: Middle Childhood (1)

School-based field experiences supplement the coursework in Curriculum and Organization in Middle Childhood. Emphasis on collaborative and interdisciplinary nature of teachers' work in middle childhood settings. Prerequisite: Co-requisite: MCED 30000.

40000 Teaching and Learning in Middle Childhood (2)

This course is the third of the four required seminars in Middle Childhood. Emphasis on theories of learning and classroom management and their application to teaching in classrooms with diverse learners. Prerequisite: FCS 41095 Special Topics: Early Adolescence.

40001 Teaching Mathematics in Middle Childhood II (3)

To develop knowledge of the theories, materials, and methods used to teach mathematics in the contemporary classroom for grades 4-9 and develop skill in their use. Prerequisite: MCED 30001.

40002 Teaching Science in the 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 forty field/clinical hours. Prerequisite: MCED 30002.

40003 Teaching Social Studies in 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.

40004 Teaching Reading with Literature in Middle Childhood (3)

The study of the teaching of reading with literature with middle childhood students within an integrated language arts approach in a comprehensive literature program. Prerequisite: MCED 30004.

40092 Field Experience III: Middle Childhood (1)

Students will be placed in their student teaching site(s). Field experiences will focus on individual, small group, and large group instruction in inclusive classrooms. Prerequisite: Co-requisite: MCED 40000.

42358 Student Teaching in Middle Childhood II (4)

Full-time student teaching for seven weeks in one or both concentrations: mathematics, science, language arts, social studies in grades 4-5 or 6-7-8. Prerequisite: MCED 42357.

43257 Student Teaching in Middle Childhood I (5)

Full-time teaching for nine weeks in one or both concentrations: Mathematics, Language Arts, Social Studies, Science in grades 4-5 and/or grades 6-7-8. Prerequisite: MCED 40000.

49525 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. Prerequisite: MCED 40000; Corequisite: MCED 42358, 43257.

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 10190 (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 10190 (ROTC only).

10190 *Leadership Seminar I (0)*

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 10180, 10181.

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. Corequisite: MSCI 20190.

20181 *Leadership Assessment I (2)*

Interdisciplinary study of organizational leadership and group dynamics through assessment of sixteen behavioral dimensions. Provides practical application and assessment of leadership skills in formal organizations. Corequisite: MSCI 20190 (ROTC only).

20183 *Leadership Assessment II (2)*

Interdisciplinary study of organizational leadership and group dynamics through assessment of sixteen behavioral dimensions. Provides practical application and assessment of leadership skills in formal organizations. Corequisite: MSCI 20190 (ROTC only).

20190 *Leadership Seminar II (0)*

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, 20181, 20183.

20196 *Individual Research (1 or 2)*

Individual research projects in leadership, management techniques, and MODE Program. Used ONLY for selected personnel for entry into the Advanced Program. Prerequisite: MS II standing; controlled.

30160 *Leadership Development (3)*

Develops managerial skills with emphasis on group dynamics, leadership theory, and practical leadership experiences. Integrates communication skills, decision making, and group motivation. Prerequisite: Permission; corequisite: MSCI 30190.

30170 *Organizational Leadership (3)*

Application of management fundamentals, decision theory, and leadership principles to organizations. Emphasis in coordinating, directing, and controlling organizations. Prerequisite: Permission; corequisite: MSCI 30190.

30183 *Leadership Practicum (1-4)*

Practical application of leadership in the military team. Prerequisite: Permission.

30190 *Leadership Laboratory III (0)*

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 30160, 30170.

40160 *Military Management and Ethics (3)*

Professional ethics and responsibilities of military leaders. Development of interpersonal and managerial communicative skills. Prerequisite: Permission; corequisite: MSCI 40190.

40170 *The Professional Military Officer, Management, and Law (3)*

Studies in professional officer development, military justice system, and the management of personnel resources. Prerequisites: Permission; corequisite: MSCI 40190.

40190 *Leadership Laboratory IV (0)*

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. Prerequisites: Permission; corequisites: MSCI 40160, 40170.

40196 *Individual Investigation (1-3)*

Individual research projects, reports, and readings. Prerequisites: Controlled and Advanced Program standing.

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.

21417 The German Experience (3)

An examination of various aspects of contemporary society in countries in central Europe where German language and culture exist. Taught in English: knowledge of German not necessary. Prerequisite: None.

23217 The French Experience (3)

An examination of various aspects of contemporary society in countries where French language and culture exist. Taught in English: knowledge of French not necessary. Prerequisite: None.

28404 The Latin American Experience (3)

An examination of various aspects of contemporary society in countries of Latin America where Spanish language and culture exist. Taught in English: knowledge of Spanish not necessary. Prerequisite: None.

28405 The Spanish Experience (3)

An examination of various aspects of society of contemporary Spain. Taught in English: knowledge of Spanish not necessary. Prerequisite: None.

30230 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

30660 Orientation to Foreign Language Pedagogy (3)

Theories of human development and learning, second language acquisition research, and foreign language methodology form the basis for classroom practices. Peer-teaching and 30 hours of field experience required. Prerequisite: Admission to professional education; oral and written competency in modern language to be taught; written competency in classical language to be taught; SEED 32142; or permission. Cross-listed with SEED 32260.

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. Prerequisite: Departmental permission.

40095 Selected Topics (3)

Topic to be announced in the *Schedule of Classes*. Repeated registration permitted when content varies. Prerequisite: Senior standing or permission.

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: Admission to Student Teaching.

40654 Computers in Second Language Teaching (3)

Students will learn how best to use the computer and computer-related materials such as e-mail, telnet, World Wide Web, and various software programs in second-language teaching. Prerequisite: None.

40657 Student Teaching of a Second Language (9)

Supervised practicum in the teaching of a second language, grades K-12. Prerequisite: Admission to Student Teaching.

40660 Practicum in Foreign Language Teaching (03)

Theoretical bases, approaches, methods, materials, and techniques of foreign language instruction at the elementary and secondary levels. Peer-teaching and thirty hours of field experience required. Cross-listed with SEED 42260.

40731 Terminology Management (3)

This course examines the basic principles and methodologies of terminology management, specifically with respect to practical multilingual translation-oriented applications. Prerequisites: MCLS 30230, and 33231 or 32231 or 38231.

MUSIC (MUS)*11111 Music Rudiments (3)*

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: Placement Test.

11121 Theory (3)

Basic elements of music—harmonic, melodic, rhythmic—studied through analysis, composition, keyboard, and ear training. Diatonic materials emphasized. Prerequisite: Placement test.

11122 Theory (3)

Continuation of basic elements of music—harmonic, melodic, rhythmic—studied through analysis, composition, keyboard, singing, and ear training. Chromatic materials emphasized. Prerequisite: MUS 11121.

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 major, minor, or permission.

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 MUS 22121. Prerequisite: MUS 12211.

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 major or permission of instructor.

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 major or permission.

20295 Special Topics in Music (1-3)

(repeated registration permitted) Academic study in areas not offered adequately in the music curriculum. Topic areas are of special interest to the faculty member. Prerequisite: Music major, minor, or permission.

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 11122; corequisite: MUS 22211.

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. Prerequisite: MUS 21121 and 22211; corequisite: MUS 32212.

22111 The Understanding of Music (3)

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.

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 MUS 12212. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

22211 Music History to 1750 (3)

A survey of Western music history from the early Christian chants through the Baroque style. Prerequisite: MUS 12211; corequisite: MUS 21121.

22212 Music History 1750 to 1900 (3)

A survey of Western music history of the eighteenth and nineteenth centuries. Prerequisite: MUS 21121, 22211; corequisite: MUS 21122.

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 major, sophomore standing.

*25011 University Chorus (1)**

(repeated registration permitted) Choral ensemble which studies and performs sacred and secular music for mixed voices. Activities include performance on and off campus. Prerequisite: Audition or permission.

*25012 Singing Collegians (1)**

(repeated registration permitted) Select chamber ensemble of fifteen-twenty voices. Choral literature performed ranges from sixteenth-century madrigals to twentieth-century pops. Performs on and off campus. Prerequisite: Audition.

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 (3)

Study of Western art music since 1900 from historical and theoretical viewpoints. Emphasis on aural, listening, compositional, and written skills as well as intellectual understanding. Prerequisites: MUS 21122 and 22212. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

*Courses offered only at Regional Campuses.

31211 Composition (2)

(repeated registration permitted) Original composition for instrumental and vocal solos and small ensembles using shorter musical forms. Prerequisite: Permission.

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, 29515, 29592, and C&I 20000.

33211 Elementary and Secondary General Music (3)

Kodaly, Orff, Dalcroze, 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 major or permission.

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 MUS 43231. Prerequisite: Music major, junior standing.

33213 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. Taken concurrently with MUS 33231 or MUS 43211. Prerequisite: Music major, junior standing.

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. Prerequisite: MUS 23241 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 or permission.

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.

41111 Practicum in Music Theory (2)

Ear training, sight singing, and analysis in preparation for graduate level music theory course work. Prerequisite: Permission.

41131 Keyboard Harmony (3)

Theoretical skills demonstrated at the keyboard: harmonization of melodies in homophonic style, 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 sixteenth-century style. Prerequisite: MUS 21122.

41151 Eighteenth-Century Counterpoint (3)

Technique of writing counterpoint in eighteenth-century style, especially that of J. S. Bach. Prerequisite: MUS 21122.

41161 Advanced Musical Analysis (3)

A study of twentieth-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 uses of technology in music composition, performance, notation, theory, history, and pedagogy. Prerequisite: Music major or minor or permission.

41199 Senior Project: Music Theory (3)

Preparation and presentation of a senior thesis in the student's area of expertise. Prerequisite: Permission.

41211 Composition (2-4)

(repeated registration permitted) Study of the materials and techniques of musical composition culminating in original works based upon observable principles of unity and variety. Prerequisite: Composition majors.

41230 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 major or permission.

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 Orchestration (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: Permission.

41342 Jazz Arranging (2)

Arranging for the large and small jazz ensemble. Prerequisite: Permission.

42111 African Music and Cultures (3)

African music as related to social sciences and humanities. Oral traditions. Use of music recordings, tapes, musical instruments, participation in performance, and group work involvement. Prerequisite: None.

42131 America's Music (3)

Historical survey of music in America from New England Psalmody to present-day compositional trends. Prerequisite: None.

42141 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.

42151 Asian Musics (3)

Survey of Asian musics. Emphasis on art, folk, and popular musics and relationships of these musics to their respective cultures. Prerequisite: None.

42161 History of Jazz (3)

The evolution of jazz from its origin to present. Prerequisite: None.

42221 Symphonic Literature (3)

Historical and stylistic survey of music for large instrumental ensemble. Prerequisite: MUS 21122 or permission.

42222 Chamber Music Literature (3)

Historical and stylistic survey of chamber music literature. Prerequisite: MUS 21122 or permission.

42241 Piano Literature (3)

Survey of keyboard and piano literature from the sixteenth century to the present; study of related forms and styles. Emphasis on performing, listening, and analysis. Prerequisite: Permission.

42251 Song Literature (3)

A study of vocal literature from the sixteenth century to the present. Emphasis upon the style, interpretation, and presentation of solo materials for all voice classifications. Prerequisite: MUS 32212 or permission.

42261 Opera Literature (3)

The historical development of opera from the seventeenth century to the present. Detailed analysis of representative works. Prerequisite: MUS 32212 or permission.

42271 Choral Literature (3)

Study of choral literature from all historical periods and styles. Prerequisite: Permission.

43211 Elementary and Secondary String Music (3)

Elementary and secondary school string music instruction; program organization, planning, repair, methods, choosing music, materials, and teaching techniques. Sixty field/clinical hours required. Taken concurrently with MUS 33213. Prerequisite: MUS 23241 and permission.

43231 Elementary and Secondary Band Music (3)

Elementary/secondary school band instruction, program organization, rehearsal/teaching techniques, lesson plans, literature, budget/scheduling, recruiting. Sixty field/clinical hours required. Taken concurrently with MUS 33212. Prerequisite: MUS 23241 and permission.

43240 Jazz and Marching Band Techniques (3)

Organization, administration, and techniques of marching bands and jazz ensembles in the schools. Topics covered include musical styles, literature, show design, and improvisation. Twenty-five field/clinical hours are required. Prerequisite: Permission.

43242 Jazz Ensemble Techniques (2)

Organization and administration of the jazz ensemble with emphasis on musical interpretation, jazz styles, and rehearsal techniques taught through laboratory experience. Prerequisite: Permission.

43243 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. Prerequisite: Music major and junior standing.

43244 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: Concurrent registration with student teaching is required.

44111 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.

44121 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 permitted) Study and performance of choral music from Renaissance through contemporary styles, large and small forms with appropriate accompaniment. Prerequisite: No audition.

45121 Kent Chorus (1)

(repeated registration permitted) Study and performance of choral music from Renaissance through contemporary styles, large and small forms with appropriate accompaniment. Prerequisite: No audition.

45131 Opera: Singer-Actor Techniques (2)

(repeated registration permitted) 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 permitted) Study and performance of literature for vocal chamber ensemble from Medieval through contemporary styles with appropriate accompaniment sung in the original language. Prerequisite: Audition.

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.

45212 Orchestra (1)

(repeated registration permitted) A select group of instrumentalists for the purpose of studying and performing music written specifically for chamber orchestra including works of the seventeenth, eighteenth, and twentieth centuries. Prerequisite: Audition.

45221 Concert Band (1)

(repeated registration permitted) Study and performance of music literature for wind band. Prerequisite: Audition.

45222 Marching Band (1)

(repeated registration permitted) Study and performance of literature and maneuvers for marching band. Prerequisite: Audition.

45223 Wind Ensemble (1)

(repeated registration permitted) A select concert ensemble that performs the finest in wind instrument literature with emphasis on major original works. Prerequisite: Audition.

45224 Basketball Band (1)

(repeated registration permitted) Study and performance of music for the basketball band. Prerequisite: Audition.

45231 Jazz Ensemble (1)

(repeated registration permitted) Study and performance of music literature in the jazz idiom. Prerequisite: Audition.

45241 Trombone Ensemble (1)

(repeated registration permitted) A thorough study of trombone performance in various sized ensembles. Emphasis on original literature from over four centuries. Prerequisite: Audition.

45251 Percussion Ensemble (1)

(repeated registration permitted) 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: Audition.

45261 Bassoon Ensemble (1)

(repeated registration permitted) Study and performance of music for multiple bassoons; emphasis upon refined ensemble playing, interpretation, leadership skills, and arranging techniques. Prerequisite: Permission/audition.

45271 New Music Ensemble (1)

(repeated registration permitted) Study and performance of twentieth-century chamber music with an emphasis on works by contemporary composers. Prerequisite: Permission.

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: Permission/audition.

45311 Chamber Music (1 or 2)

(repeated registration permitted) The study and performance of music for small ensembles. Prerequisite: Permission.

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: Permission.

47014 Folk Guitar for the Music Educator (1)

Development of basic folk guitar performance skills for music education majors. Prerequisite: Music major, MUS 23111, or permission. Special fee: \$20.00—subject to change.

47811 Instrument Class for the Choral/General Music Educator (1)

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 major or permission. Special fee: \$20.00—subject to change.

48111 Eurhythmics (1)

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 majors-minors.

48112 Eurhythmics (1)

See MUS 48111. Prerequisite: MUS 48111.

48211 Introduction to Piano Pedagogy (2)

Observation and teaching of individual and class lessons, children, and adults. Study and performance of preparatory materials, elementary through intermediate piano literature. Prerequisite: Junior standing.

48221 Elements of Accompanying I (2)

Techniques of accompanying; selected overview of art song literature including Italian, German, French, and English songs; development of playing-at-sight skills. Prerequisite: Permission.

48222 Elements of Accompanying II (2)

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.

48241 Voice Pedagogy (2)

Survey of techniques, practices, and materials of teaching voice. Prerequisite: Permission.

48251 Pedagogy of Music Theory (2)

The principles and techniques of teaching music theory. Prerequisite: MUS 21122.

48257 Pedagogy—Instrumental (2)

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: Permission.

48393 Variable Title Workshop in Music (1-4)

Offered for specific professional needs. Emphasis on performance and pedagogical skills. Prerequisite: Permission.

48512 Improvisation (1)

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.

48598 Music Research (2-3)

(repeated registration permitted) Research or individual investigation for undergraduate students. "IP" grade permissible. Prerequisite: Permission.

49525 Inquiry into Professional Practice (3)

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. Prerequisite: Music major, senior standing.

Applied Music

Students who plan to register for applied music for the first time must audition for the appropriate faculty member(s) prior to registering for the course.

Private Applied Music Instruction: Privately instructed performance courses are offered each semester. Performance majors will register for 4 hours credit, receive a one-hour lesson weekly and attend the weekly studio class of their major performing medium. Nonperformance majors will register for 2 hours credit, receive a one-half-hour lesson weekly and attend the weekly studio class of their major performing medium. Applied music study for nonmajors and nonminors is subject to faculty and studio availability and may be elected only with the permission of the School of Music.

The following courses are either 2 or 4 credit hours. Students electing 2 will pay \$45.00 per semester and students electing 4 will pay \$90.00 per semester.

36111, 46111 — Piano

36211, 46211 — Organ

36311, 46311 — Voice

36411, 46411 — Violin

36412, 46412 — Viola

36413, 46413 — Violoncello

36414, 46414 — Double Bass

36511, 46511 — Flute

36512, 46512 — Oboe

36513, 46513 — Clarinet

36514, 46514 — Bassoon

36515, 46515 — Saxophone

36611, 46611 — Trumpet

36612, 46612 — French Horn

36613, 46613 — Trombone

36614, 46614 — Euphonium

36615, 46615 — Tuba

36711, 46711 — Percussion

36811, 46811 — Harpsichord

36911, 46911 — Harp

36912, 46912 — Guitar

Class Instruction: Classes in piano, voice, strings, woodwinds, brasses, and percussion are available. The prerequisite for each course is cited in the Catalog description. The instruction fee is \$20.00 for a 1-hour course and \$25.00 for a 2-hour credit course.

17011, 17012 Piano Class for Nonmusic Students (2 Each)

Development of basic skills required in playing piano, including familiarity with the keyboard and music notation. Prerequisite: Of MUS 17011 is none; of 17012 is MUS 17011 or audition.

17111, 17112 Piano Class (1 Each)

Preparatory piano. Credit not acceptable on music major sequences. Piano literature and functional elements of sight-reading, transposition, harmonization, and improvisation. Prerequisite: Audition.

27111, 27112 Piano Class (2 Each)

Continuation of piano classes. Credit acceptable on music major and minor sequences. Prerequisite: MUS 17112 or audition.

36111 Applied Music—Piano (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual study. Prerequisite: Audition.

36211 Applied Music—Organ (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36311 Applied Music—Voice (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36411 Applied Music—Violin (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36412 Applied Music—Viola (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36413 Applied Music—Violoncello (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

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: Audition.

36511 Applied Music—Flute (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36512 Applied Music—Oboe (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36513 Applied Music—Clarinet (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36514 Applied Music—Bassoon (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36515 Applied Music—Saxophone (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36611 Applied Music—Trumpet (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36612 Applied Music—French Horn (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36613 Applied Music—Trombone (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36614 Applied Music—Euphonium (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36615 Applied Music—Tuba (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36711 Applied Music—Percussion (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36811 Applied Music—Harpichord (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36911 Applied Music—Harp (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

36912 Applied Music—Guitar (2 or 4)

A comprehensive study of performance, technique, and repertoire appropriate to music majors and minors. Individual instruction. Prerequisite: Audition.

37111 Functional Piano (2)

Development of keyboard facility for practical purposes in classroom. Credit by Exam With Departmental Approval. Prerequisite: MUS 21122 or permission.

47012 Folk Guitar Class I (2)

Development of basic folk guitar performance skills. Prerequisite: None.

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 or permission.

47311 Voice Class (1)

Class instruction in the fundamentals of correct breathing, tone production, and diction. Prerequisite: Music majors-minors or permission.

47411 String Class (1)

(repeatable for a total of 3 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 major-minor or permission.

47511 Woodwind Class (1)

(repeatable for a total of 3 hours) Study of fundamental principles of performance on woodwind instruments; methods and materials for class and private instruction. Prerequisite: Music major-minor or permission.

47611 Brass Class (1)

(repeatable for a total of 3 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 major-minor or permission.

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 major-minor or permission.

47911 Harp Class (1)

Study of basic fundamentals of performance on harp. Includes teaching techniques for the development of school music programs. Prerequisite: Music major-minor or permission.

NURSING (NURS)**10020 Basic Cardio Life Support (1)**

C.P.R. (cardiopulmonary resuscitation) techniques for infants, children, and adults. American Heart Association certified. Lecture 1 hour weekly, laboratory 2 hours weekly. "S/U" grades. Prerequisite: None.

10021 Basic Life Support Instructor Certification (1)

Development of techniques used in teaching B.C.L.S. Instructor certification in cardiopulmonary resuscitation. Lecture 1 hour weekly, laboratory 2 hours weekly. Prerequisite: NURS 10020.

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.

20000 Professional Nursing Issues (2)

Focuses on Nursing theory; personal and professional role development; issues of cultural diversity; ethical, political, and economic influences on health care delivery at local and regional levels. Prerequisite: Admission to Sophomore Nursing sequence; NURS 10050.

20020 Assessment and Communication in Nursing (3)

Individuals are assessed as members of families and community members. Communication in nursing is explored. Prerequisite: Admission to Sophomore Nursing sequence. Special Lab Fee: \$50.50—subject to change.

20030 Foundations of Nursing Interventions (5)

Foundations of Nursing Interventions 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. Prerequisite: NURS 20020, Foundations of Nursing Interventions. Special Lab Fee: \$80.00—subject to change.

20040 Basic Aspects of Health Care (4)

Introduction to nursing and delivery of health care. Individual behavior in health and illness and nurse-patient interaction are explored. Prerequisites: Sophomore standing and 8 hours biology and 10 hours chemistry. Special Lab Fee: \$15.00/cr. hr.—subject to change.

20041 Basic Nursing (5)

Focus on alterations in health in adults and expansion of understanding of nursing process. Prerequisites: NURS 20040, 20950, and BSCI 30030. Special Lab Fee: \$15.00/cr. hr.—subject to change.

20160 Nursing Process (2)

Concepts of nursing process/process recording are taught with emphasis on those processes as used at Kent State University School of Nursing. Philosophies of nursing are discussed. Prerequisites: Sophomore in nursing and permission.

20950 Human Growth and Development for Health Professionals (3)

Examines theoretical principles and concepts of human growth and development throughout the life cycle applicable to personal and professional activities essential to the accurate assessment of human needs and understanding human behaviors. Prerequisite: PSYCH 11762 and Sophomore standing.

21095 Special Topics (2-4)

Scheduled topics of interest to faculty and students. Prerequisite: Sophomore standing.

21096 Individual Investigation (2-4)

Designed for the student interested in exploration and research of material not covered in required nursing courses. Prerequisites: NURS 20040 and permission.

30000 Professional Nursing Concepts (2)

Focuses on concepts impacting professional nursing. National issues affecting nursing and health care are examined. Prerequisites: NURS 20000, 20030, 20950; BSCI 30030, 30050; and CHEM 20284. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

30010 Parent and Newborn Nursing (4)

A study of nursing assessment, need identification, and evaluation for individuals and families during the child bearing cycle. Prerequisites: NURS 20000, 20030, 20950; BSCI 30030, 30050; and CHEM 20284. Special Lab Fee: \$69.00—subject to change.

30020 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 20000, 20030, BSCI 30030, 30050; and CHEM 20284. Special Lab Fee: \$69.00—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 20000, 20030, 20950; BSCI 30030, 30050; and CHEM 20284. Special Lab Fee: \$80.00—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 20000, 20030, 20950; BSCI 30030, 30050; and CHEM 20284. Special Lab Fee: \$69.00—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.

30060 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; BSCI 30030; and CHEM 20284.

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 20041 and 20950.

30160 Nursing of Children (5)

Nursing process in family-centered care of children, including developmental promotion, illness prevention, and restorative intervention. Prerequisites: NURS 20041 and 20950. Special Lab Fee: \$15.00/cr. hr.—subject to change.

30361 Nursing and the Emerging Family (5)

Study of nursing assessment, need identification, intervention, and evaluation for individuals and families during child-bearing cycle. Prerequisites: NURS 20041 and 20950. Special Lab Fee: \$15.00/cr. hr.—subject to change.

30462 Nursing Care of the Adults (10)

Nursing role and functions with aging individuals and those with chronic illnesses. Emphasizes prevention and therapy of episodic illnesses and maintenance of optimum health status. Prerequisites: NURS 20041 and 20950. Special Lab Fee: \$15.00/cr. hr.—subject to change.

30870 Nursing Concepts (2)

Contemporary and emerging roles of nursing in various health care settings. Introduction to nursing theories and the ethical basis and criteria for evaluation of practice. Prerequisites: NURS 20040, 20041, and 20950. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31095 Special Topics (2-4)

Scheduled topics of interest to faculty and students. Prerequisites: NURS 20041 and 20950.

31096 Individual Investigation (2-4)

Designed for the student interested in exploration and research of material not covered in required nursing courses. Prerequisites: NURS 20041 and permission.

40000 Professional Nursing Development (2)

Focuses on career development in professional nursing. International and/or global issues affecting nursing and health care delivery are examined. Prerequisites: NURS 30000, 30010, 30030, 30060, 30040, and 30050. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

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 30000, 30010, 30030, 30040, 30050, and 30060. Special Lab Fee: \$69.00—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 own transportation to field experience. Prerequisites: NURS 30000, 30010, 30020, 30030, 30040, 30050, and 30060. Special Lab Fee: \$69.00—subject to change.

40040 Leadership and Management in Nursing (4)

Concepts and practice essential to leading and managing health care personnel across the health care continuum. Prerequisites: NURS 30000, 30010, 30020, 30030, 30040, 30050, and 30060. Special Lab Fee: \$60.00—subject to change.

40050 Nursing Integration Practicum (3)

The course focuses on role development/synthesis of nursing knowledge in a selected potential practice area. Students set their own objectives and are paired with a nurse preceptor. Prerequisites: NURS 30000, 30010, 30020, 30030, 30040, 30050, and 30060. Special Lab Fee: \$50.50—subject to change.

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 nursing student or permission.

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 nursing student or permission.

40460 Human Behavior in Nursing (5)

Focus on utilization of critical analysis to understand interpersonal relationships. Emphasis on implementation and evaluation of relationships as therapeutic intervention. Prerequisites: NURS 30160, 30361, 30462, and 30870. Special Lab Fee: \$15.00/cr. hr.—subject to change.

40463 Nursing the Acutely Ill (5)

Holistic approach to assessing, intervening, and evaluating care of the acutely ill person. Includes both classroom theory and clinical nursing practice in intensive care settings. Prerequisites: NURS 30160, 30361, 30462, and 30870. Special Lab Fee: \$15.00/cr. hr.—subject to change.

40561 Leadership in Nursing (5)

Concepts and practice essential to leadership role in planning, giving, implementing, and evaluating nursing care for groups of patients. Lecture 3 hours, laboratory 20 hours weekly. Prerequisites: NURS 30160, 30361, 30462, and 30870. Special Lab Fee: \$15.00/cr. hr.—subject to change.

40662 Nursing in the Community (5)

Concepts of community health with emphasis on prevention of health problems and on promotion of community health. Students responsible for own transportation for field experience. Lecture 3 hours, laboratory 8 hours weekly. Taught concurrently with NURS 40460. Prerequisites: NURS 30160, 30361, 30462, and 30870. Special Lab Fee: \$15.00/cr. hr.—subject to change.

40870 Nursing As a Profession (2)

Issues and trends in nursing education and practice in terms of historical development of nursing. Prerequisites: NURS 30160, 30361, 30462, and 30870. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

40872 Introduction to Nursing Research (3)

Scientific approach and methods of research design in clinical nursing. Evaluation of specific nursing studies. Development of a researchable nursing problem, analysis, and critique of studies of problem and implications for clinical practice. Prerequisites: Statistics prerequisite or concurrent; Junior Nursing; Honors students.

41095 Special Topics (2-4)

Scheduled topics of interest to faculty and students. Topics to be announced when scheduled. Prerequisites: NURS 30160, 30361, 30462, and 30870.

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, 30361, 30462, and 30870.

NURSING 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 Requisites as an organizational framework. Prerequisite: Admission to the nursing program.

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: For students enrolled in the nursing program, the course must be taken concurrently with NRST 10001. Permission of the instructor is required for non-nursing students.

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. Prerequisite: Successful completion of all first semester courses (BSCI 20020, CHEM 10054, US 10001, NRST 10001, and NRST 10002) with a cumulative GPA of 2.0 or better.

10004 Older Adult Developmental Self-Care (2)

Age related and pathological changes of aging. Includes nursing care approaches for older patients with health deviations. Prerequisite: Admission to the nursing program. Permission of the instructor is required for registered nurses and LPNs.

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. Prerequisite: Admission to the nursing program.

10006 Transitions in Nursing Agency (5)

This course includes content areas from all first-year nursing courses and will have both a theory and a campus/clinical lab. Orem's theory is introduced emphasizing the assessment of the client's self-care assets and self-care deficits. Prerequisite: Admittance to ADN program and first level Arts and Sciences courses.

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; PSYC 11762; FCS 33512; 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. Prerequisite: NRST 10005.

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. Course must be taken the semester that the student is planning to graduate. Prerequisite: NRST 20206 and 20207.

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: NURS 20950 and completion of all first and second semester courses.

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: NURS 20950 and completion of all first and second semester courses.

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. Prerequisite: Must be taken concurrently with NRST 20208.

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: Permission of director.

The student must complete 36 semester hours of the nursing curriculum with a cumulative grade point average of 2.00 to progress to the second year of the nursing program.

The student must achieve a grade of "C" 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.

OCCUPATIONAL THERAPY ASSISTING TECHNOLOGY (OTAT)*

10000 Introduction to Occupational Therapy Assisting (3)

Introduction to the profession of occupational therapy, 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: Admission to program. Special Fee—\$25.00.

10002 Therapeutic Techniques I—Psychosocial (5)

Application of occupational therapy skills and techniques in treatment programs, concerned with psychosocial dysfunction. Prerequisite: Admission to program and OTAT 10000; corequisite: OTAT 10001.

20000 Therapeutic Techniques II—Physical Dysfunction (5)

Application of occupational therapy skills and techniques in treatment programs, specifically concerned with physical dysfunctions. Prerequisite: OTAT 10002; corequisite: OTAT 20001 and 20002.

20001 Occupational Therapy Management Skills (2)

Introduction to skills required for performing administrative tasks in the Occupational Therapy Department. Also includes professional issues. Prerequisite: OTAT 10002. Corequisite: OTAT 20000, 20002.

20002 Therapeutic Media II (3)

Continued development of skills in the use of craft media and basic concepts related to occupational therapy. Prerequisite: OTAT 10001. Special Fee:—\$25.00.

20003 Therapeutic Media III (3)

Development of skills utilized in adapting equipment for patients/clients to carry out activities of daily living. Prerequisite: OTAT 20002. Special Fee:—\$25.00

20004 Therapeutic Techniques III—Developmental Disabilities (3)

Application of occupational therapy skills and techniques applied to patients/clients with developmental disabilities. Prerequisite: OTAT 20000.

20005 Clinical Applications (8)

(320 clinical lab hours) Under the supervision of personnel in selected health care agencies the student will apply knowledge, skills, and techniques acquired in prior and concurrent OTAT courses. Prerequisite: OTAT 20000; corequisite: OTAT 20003 and 20004.

OFFICE MANAGEMENT AND RELATED TECHNOLOGIES (OMRT)*

11030 Keyboarding I (3)

Develop skills in touch typing and editing techniques using a computer. Includes letters, memos, reports, and tables using word processing software. Skill attained: 35-45+ wpm. Prerequisite: None or gross speed under 30 WPM.

11032 Rapid Writing (3)

A quick and easy-to-learn rapid writing system using the alphabet and reaching speeds of 50-80 wpm. Notes are transcribed using word processing software. Prerequisite: OMRT 11030 or equivalent.

11035 Business Calculators (1)

Applications of business mathematics utilizing the touch system on electronic calculators and computer number keypads with emphasis on speed and accuracy. Prerequisite: BMRT 11006.

11036 Records Management (3)

Introduction to the role of electronic and paper records in the business office. Creation, use, and disposition of alphabetic, numeric, geographic, and subject filing systems. Prerequisite: None.

11038 Business Spreadsheets (1)

Use of electronic spreadsheets in advanced applications. Prerequisite: COMT 11011.

11039 Data Base Applications (1)

Concepts, terminology, and business applications of computerized data bases. Emphasis on hands-on experiences. Prerequisite: None.

11080 Computer Keyboarding (1)

A basic keyboarding course using computers. Designed for students who have no previous keyboarding instruction or a speed of less than 30 wpm. Prerequisite: None.

21010 Office Management (3)

Exploring the office management function, ranging from workflow/space management, forms/budgetary control, and productivity improvement to training/appraisal of office employees. Prerequisite: None.

21013 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: OMRT 11030 or permission.

*Courses offered only at Regional Campuses.

21019 Integrated Office Software (2)

Learn the fundamentals of the components of a popular office suite and how these components can be integrated. Prerequisite: OMRT 21021 or permission.

21020 Word Processing I (3)

Study of basic features of two popular word processing software packages for the production of business documents. Emphasis is on hands-on experience. Prerequisite: OMRT 11030 or ability to keyboard 25+ wpm.

21021 Word Processing II (3)

Design and create documents by using advanced features of two popular word processing software packages. Prerequisite: OMRT 21020.

21022 Desktop Publishing (3)

Computer-based document design including graphic standards, layout, and style. Students will produce newsletters, brochures, reports, business forms, and other documents. Prerequisite: OMRT 21020.

21025 Visual Presentations (1)

Develop and produce professional presentation materials using presentation software. Includes use of desktop publishing techniques, color, layout, and organizational principles. Create overhead transparencies and computer-projected presentations. Prerequisite: OMRT 21021 or permission.

21033 Keyboarding II (3)

Develop keyboarding speed and accuracy on the computer. Includes advanced applications using specialized office simulations. Skill attained—45-55+ wpm on five-minute timed writings. Prerequisite: OMRT 11030.

21035 Administrative Office Procedures (3)

Understand how office professionals can use their knowledge, skills, and abilities to solve problems, implement new procedures, and provide valued assistance in an office environment. Prerequisite: None.

21037 Specialized Machine Transcription (3)

Transcription of machine dictation emphasizing documents relating to legal and medical professions. Includes application of language skills and mastery of proofreading/editing procedures and techniques. Prerequisite: OMRT 11030 or permission.

21038 Business Communications (3)

Theory and application of oral and written business communications with emphasis on business letters, reports, employment process, visual presentations, and electronic communications. Prerequisites: ENG 10001 and COMT 11000 or permission.

21040 Seminar in Office Technology (3)

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: Permission and must have completed 45 hours towards degree.

21092 Internship in Office Technology (1-3)

(repeatable for a total of 4 hours) Supervised field experience. Minimum requirement per semester: 7 hours per week for unpaid office experience or 10 hours per week for paid office experience. Prerequisites: Sophomore standing, 2.00 GPA or better in the major, and permission.

21095 Special Topics in Office Technology (1-3)

(repeated registration permitted) Special topics in office technology. Prerequisite: Permission.

21096 Individual Investigation in Office Management Technology (1-3)

Independent, in-depth research of an OMRT topic supervised and coordinated by an OMRT faculty member. Prerequisites: Twelve credit hours of OMRT courses and permission of a full-time OMRT faculty member.

PAN-AFRICAN STUDIES (PAS)

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

10101 Elementary Kiswahili I (4)

This course is an introduction to Kiswahili in which students will learn the essentials of speaking, reading, and writing the most extensively used language in East Africa. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

10102 Elementary Kiswahili II (4)

Continuation of PAS 10101, aimed at advancing student knowledge and communication skills in Kiswahili by introducing Kiswahili literature—short narratives, proverbs, folktales. Prerequisite: PAS 10101 or equivalent. This course may be used to satisfy the Liberal Education Requirements.

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: CRIT 13102, 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.

21071 The Black Community in America (3)

Confronts problems of urban Black communities: public administration, transportation, health, public finance, crime and justice, urban geography/Black demography, and education. Prerequisites: PAS 23101, 23102.

23101 Interpreting the Black Experience I: Towards a New Community—Beginnings to 1865 (3)

Study and analysis of the African experience prior to, and following, arrival of Africans in the New World. Emphasis on North, South America, Africa, and Caribbean. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

23102 Interpreting the Black Experience II: Towards a New Community—1865 to Present (3)

The second of two parts, this course covers the period 1865 to present and is a continuation of PAS 23101. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

24000 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.

24002 Visual and Oral Awareness (3)

A Pan-African analysis of existing forms of aural/oral and visual communication as these areas relate to the students' orientations to their internal and external environments. Prerequisite: None.

24093 Black Writer's Workshop (3)

(repeatable for a total of 6 hours) The Black aesthetic in creative writing and oral literature. Focus on craft and tools of creative writing. "IP" grade permissible. Prerequisite: College English or PAS 24000 or permission.

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 23101 or 23102.

30000 Introduction to African World View (3)

Investigates traditional Black cosmological world view as it is in African societies and as it has persisted in Americas; counterpoises examination of Black aesthetic. Prerequisite: PAS 23101, 23102, or permission.

30100 Research Methods in Pan-African Studies (3)

Exposes students to the basic components of research methods in Pan-African studies utilizing a multidisciplinary approach. Prerequisite: None.

31001 East African Literature and Culture (3)

Study of relationship between the Kiswahili language and the culture of East African peoples, based on an analysis of Kiswahili poetry, music, songs, and proverbs. Prerequisite: CRIT 13102, PAS 10102 or permission.

31800 Black Social and Political Thought 1750-1900 (3)

Study of the history and nature of social and political thought of African Americans. Course emphasizes the theoretical methodological implications of Black community analysis. Prerequisite: Junior or senior standing.

31801 Black Social and Political Thought 1900-Present (3)

Study of the history and nature of social and political thought of African Americans. Course emphasizes the theoretical methodological implications of Black community analysis. Prerequisite: Junior or senior standing.

32000 The Black Family (3)

Examines social and historical factors which have influenced the Black family throughout various periods of history from African shores through the American experience. Prerequisites: PAS 23101, and 23102, or permission.

33508 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.

34609 Caribbean Language and Folklore (3)

Overview of the Caribbean French, Spanish, Dutch, and English creole languages, especially their common features; study of the folktales and proverbs in the creoles and in translation. Prerequisite: Basic knowledge of French, Spanish, Dutch, or a West African language.

35090 African Theatre Arts (3)

(repeatable for a maximum of 6 hours) Exposes students to fundamental techniques of stage through auditory, visual, and physical participation. Prerequisite: PAS 24000 or permission.

37143 The African-Brazilian Experience in Culture and Literature (3)

(cross-listed with HIST 31143, PORT 37143, and SPAN 38143) Interdisciplinary approach to the study of the African-Brazilian experience, from the colonial period to the present, as reflected in selected literary, sociocultural, and historical texts. Course taught in English. Prerequisite: Junior standing or permission.

41992 African-American Affairs Practicum (1-5)

(repeatable for a total of 10 hours) Guided involvements in urban areas with large Black populations to provide experience with community service, government agencies, public and parochial schools, self-help organizations, etc. "IP" grade permissible. Prerequisite: Junior or senior standing, or permission.

42500 Black Education in America (3)

(repeatable for a maximum of 6 hours) Provides leadership skills for students going into public or private education in the Black community. Prerequisite: PAS 21091 or permission.

44791 Literature of Pan Africa (3)

(repeatable for a total of 9 hours) Examines the Black experience in Pan-African novel, poetry, or drama for continuities and discontinuities within the Black aesthetic. Prerequisites: ENG 10002, PAS 23101, or 23102, or permission.

44971 Roots of Pan-African Unity and Culture (3)

Examines traditional lifestyles of people of African descent, origins, the propriety of regarding such people as constituting a unity, and the relevance to African descendants. Prerequisite: Junior or senior standing, or permission.

47777 The Black Woman (3)

This course surveys the experiences of Black women throughout various periods of history and their roles in shaping the social, economic, and political development of societies. Prerequisites: PAS 23101 and 23102 or permission.

49093 Variable Title Workshop in PAS (2-6)

Prerequisite: Permission.

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: Junior or senior standing, or permission.

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.

49197 Senior Colloquium (3)

Explores Pan-African ideas and issues by means of student presentation of individual research papers or projects before departmental faculty, students, and general public. "IP" grade permissible. Prerequisite: PAS major with junior or senior standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

PHILOSOPHY (PHIL)*11001 Introduction to Philosophy (3)*

An introduction to the diverse methods and subject matters of philosophy. Primary philosophic sources from varied philosophical traditions focus on at least three philosophic areas. Prerequisite: None. This course may be used to satisfy the Liberal Education 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.

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.

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.

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.

21020 Comparative Religious Thought I (3)

Philosophic study of the religious impulse as it manifests itself variously in beliefs, practices, and institutions ranging over times and cultures. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

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.

31001 Ancient Greek Philosophy (3)

Examination of issues of Greek thought from its inception through Plato and Aristotle. Prerequisite: At least one of PHIL 11009, 21002, 30145; and at least one of PHIL 11001, 21001; or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31003 Continental Rationalism (3)

Selections from Rationalists; for instance, Descartes, Spinoza, and Leibniz. Prerequisite: At least one of PHIL 11009, 21002, 30145; and at least one of PHIL 11001, 21001; or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31004 British Empiricism (3)

Selections from British Empiricists; for instance, Locke, Berkeley, and Hume. Prerequisite: At least one of PHIL 11009, 21002, 30145; and at least one of PHIL 11001, 21001; or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31005 German Critical Philosophy (3)

Selections from Kant and post Kantians. Prerequisite: At least one of PHIL 11009, 21002, 30145; and at least one of PHIL 11001, 21001; or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31006 Nineteenth-Century Philosophy (3)

Selections from works of nineteenth-century philosophers. Prerequisite: At least one of PHIL 11009, 21002, 30145; and at least one of PHIL 11001, 21001; or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31010 Twentieth-Century Philosophy (3)

Selections from the most influential schools of thought within twentieth-century philosophy: Existentialism, Pragmatism, Logical Positivism, Analytic Philosophy, Phenomenology. Prerequisite: At least one of PHIL 11009, 21002, 30145; and at least one of PHIL 11001, 21001; or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31020 American Philosophy (3)

Selections from principal American philosophers from colonial times to present. Prerequisite: At least one of PHIL 11009, 21002, 30145; and at least one of PHIL 11001, 21001; or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31030 Existentialism (3)

Development and themes of existentialism. Prerequisite: Junior standing or one course in philosophy or permission.

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: Junior standing in criminal justice or political science, or a prior course in philosophy, or permission.

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. Prerequisite: One course in Philosophy, Jr. standing, or permission.

31045 Formal Logic (3)

(cross-listed with MATH 31045) Systematic study of symbolic logic especially for philosophy majors, mathematics majors, and those interested in more advanced courses in logic. Prerequisite: Junior standing, or one course in philosophy, or permission.

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: Junior standing in architecture, art, journalism and mass communication, music, speech, or one course in philosophy, or permission.

31065 Philosophies of Religious Experience (3)

Examination of phenomena of religious experience, its structure, ramifications, and expression in myth and ritual. Prerequisite: Junior standing, or one course in philosophy, or permission.

32091 Seminar: Reflections on Man (3)

(repeated registration permitted with departmental approval) Exploration of philosophic literature for contrasting or developing conceptions of man. Prerequisite: Junior standing, or one course in philosophy, or permission.

40005 Health Care Ethics (3)

Ethical problems in health care critically assessed, and consideration of how these specific ethical problems illuminate the ethical enterprise. Prerequisite: Prior course in philosophy, or junior standing in a health care discipline, or permission.

40093 Variable Title Workshop in Philosophy (1-6)

Prerequisite: Permission.

41010 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, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41020 Social Philosophy (3)

Philosophic examination of theories of societies as proposed by various writers. Prerequisite: At least one of PHIL 31001, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41025 Philosophy of Law (3)

Critical examination of the nature and function of law. Prerequisite: Junior standing in criminal justice or political science, or one philosophy course at 30000-level or above, or permission.

41028 Ethical Pluralisms (3)

Intensive study of selected ethical problems or ethical philosophies seen in some relation to alternative views. Prerequisite: At least one of PHIL 31001, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41035 Philosophy of Science (3)

Analysis of methodological problems in scientific disciplines. Prerequisite: At least one of PHIL 31001, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41040 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, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41045 Metalogic (3)

(cross-listed with MATH 41045) Relatively formal treatment of syntactic and semantic theory of propositional and predicate logic, with some attention to the limits of formalism. Prerequisite: PHIL 31045 or permission.

41050 Philosophical Analysis and Beyond (3)

Study of major problems in analytic philosophy and subsequent philosophical analysis. Prerequisite: At least one of PHIL 31001, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41055 Phenomenology and Beyond (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, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41060 Pragmatism and Beyond (3)

Detailed reading from classical American pragmatists along with some attention to later interpretations and explorations of current re-appraisals and developments. Prerequisite: At least one of PHIL 31001, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41065 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, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41070 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, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41076 Continental Philosophy (3)

Investigation of some figure, issue, or theme in continental philosophy from Descartes to present. Prerequisite: At least one of PHIL 31001, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41077 British and American Thought (3)

Detailed investigation of a figure or issue in British or American philosophy. Prerequisite: At least one of PHIL 31001, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

41080 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. Prerequisite: Junior standing in art, or one course of PHIL 31001-31020, or permission.

41085 Theories, Concepts and Narratives (3)

Concentrated discussion of explanation, its elements, its varieties, and its alternatives. Prerequisite: At least one of PHIL 31001, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

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, 31003, 31004, 31005, 31006, 31010, 31020; or permission.

49995 Special Topics (2-3)

(repeatable when content varies) Prerequisite: Permission.

49996 Individual Investigation (1-3)

(repeated registration permitted with departmental approval prior to registration) "IP" grade permissible. Prerequisite: Departmental permission prior to registration.

49999 Senior Honors Project (2-3)

(repeated registration permitted with departmental approval prior to registration) Thesis or other independent study or creative project. "IP" grade permissible. Prerequisite: Departmental permission 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. Prerequisite: Recommended by Kent Health Center.

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 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)

Prerequisite: No or minimal swimming ability.

10103 International Folk Dance (1)

Prerequisite: None.

10104 Archery (1)

Prerequisite: None.

10105 Skiing (1)

(repeatable for a total of 1 hour) Beginning, intermediate, or advanced intermediate skill levels. "S/U" grading. Prerequisite: None. Special fee: \$100.00/cr.hr. — subject to change.

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.

10124 Wheelchair Basketball (1)

For any individual who, because of permanent leg disability or paralysis of the lower portion of the body, will benefit from wheelchair basketball. Prerequisite: None.

10125 Basketball (1)

Prerequisite: None.

10126 Basketball—Varsity (1)

Controlled registration.

10136 Rhythmic Gymnastics (1)

Prerequisite: None.

10202 Intermediate Swimming (1)

Prerequisite: PEB 10102 or equivalent.

10204 Badminton (1)

Prerequisite: None.

10222 Swimming—Varsity (1)

Controlled registration.

10302 Springboard Diving (1)

Prerequisite: None.

10304 Bowling (1)

Prerequisite: None. Special fee: \$25.00/cr.hr. — subject to change.

10305 Billiards (1)

Prerequisite: None. Special fee: \$10.00/cr.hr. — subject to change.

10306 Jogging (1)

Prerequisite: None.

10315 Intermediate Billiards (1)

Prerequisite: PEB 10305 or equivalent. Special Fee: \$10.00/cr.hr. — subject to change.

10325 Soccer (1)

Prerequisite: None.

10402 Beginning Synchronized Swimming (1)

Prerequisite: Intermediate swimming ability.

10403 Beginning Ballroom Dance (1)

Prerequisite: None.

10404 Fencing—Foil Only (1)

Prerequisite: None.

10405 Western Square Dance (1)

Prerequisite: None.

10425 Baseball—Varsity (1)

Controlled registration.

10426 Softball—Varsity (1)

Controlled registration.

10505 Volleyball (1)

Prerequisite: None.

10506 Touch Football (1)

Prerequisite: None.

10602 Water Safety Instructor (2)

Leads to Red Cross water safety instructor certificate. Prerequisite: PEB 10202 or equivalent.

10604 Beginning Golf (1)

Prerequisite: None. Special fee: \$6.00/cr.hr. — 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 or equivalent.

10702 Skin and Scuba Diving (1)

Prerequisite: None.

10704 Intermediate Golf (1)

Prerequisite: None. Special fee: \$15.00/cr.hr. — subject to change.

10724 Golf—Varsity (1)

Controlled registration.

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 or equivalent.

10916 Advanced Racquetball (1)

Prerequisite: PEB 10906 or equivalent.

11023 Basic Track and Field (1)

Introduction to the basic techniques and rules of track and field events. Consideration of relative conditioning methods and safety procedures. Prerequisite: None.

11024 Track and Field—Varsity (1)

Controlled registration.

11025 Cross Country—Varsity (1)

Prerequisite: Controlled registration.

11104 Beginning Gymnastics (1)

Prerequisite: None.

11124 Gymnastics—Varsity (1)

Controlled registration.

11125 Football—Varsity (1)

Controlled registration.

11203 Horsemanship (1)

(repeatable for intermediate and advanced levels) One hour riding, 1 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: \$100.00/cr.hr. — subject to change.

11245 Introduction to Recreational Ice Hockey—Coed (1)

Students are introduced to the fundamentals and importance of teamwork, sportsmanship, in addition to the enjoyable aspects of recreational hockey. Prerequisite: None. Special fee: \$25.00/cr.hr. — subject to change.

11246 Intermediate Ice Hockey—Coed (1)

Students develop proper technique in the fundamentals, analyze systems, learn to react to situations, and study team play. Prerequisite: PEB 11245 or equivalent. Special fee: \$25.00/cr.hr. — subject to change.

11325 Advanced Ice Hockey (1)

To build on the basic hockey fundamentals, leading to advanced team play and game situations, providing deeper insight into the game of hockey. Prerequisite: PEB 11245. Special fee: \$25.00/cr.hr. — subject to change.

11326 Ice Hockey—Varsity (1)

Prerequisite: None.

11604 Beginning Karate (1)

Prerequisite: None.

11605 Intermediate Karate (1)

Prerequisite: PEB 11604 or three months' experience.

11606 Advanced Karate (1)

Perfection of basic Karate techniques. Introduction of the use of the Jo (wooden staff). Prerequisite: PEB 11605 or one year experience.

11634 Self-Defense (1)

Prerequisite: None.

11724 Handball (1)

Prerequisite: None.

11824 Wrestling (1)

Prerequisite: None.

11825 Wrestling—Varsity (1)

Controlled registration.

11904 Beginning Ice Skating (1)

Prerequisite: None. Special fee: \$25.00/cr.hr. — subject to change.

12004 Basic Figure Skating (1)

Prerequisite: PEB 11904. Special fee: \$25.00/cr.hr. — subject to change.

12104 Advanced Figure Skating (1)

Prerequisite: PEB 11904. Special fee: \$25.00/cr.hr. — subject to change.

12324 Weight Training (1)

Prerequisite: None.

12325 Women's Weight Training (1)

A basic course in the use of equipment in an average weight room and its application towards the development of strength and power. Prerequisite: None.

12326 Advanced Weight Training (1)

Advanced weight training. Prerequisites: PEB 12324 and 10095.

12424 Exercise and Weight Control (1)

Instruction in and practice of exercise 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.

12501 Fishing (1)

Laws, conservation, and safety. Techniques of bait casting, spinning, and fly rod use. Selection and care of equipment. Prerequisite: None.

12604 Intermediate Fencing (1)

Prerequisite: PEB 10404 or equivalent.

13001 Tournament Golf (1)

Prerequisite: PEB 10704 or equivalent.

13003 Dance Exercise (1)

An aerobic program concerned with cardiovascular efficiency, flexibility, and strength gain which is achieved through dance movement. Prerequisite: None.

13006 Cross-Country Skiing (1)

Basic through intermediate nordic skiing technique, waxing, equipment and clothing selection, conditioning, winter safety considerations, trip planning. Prerequisite: Student must supply equipment.

13008 Advanced Volleyball (1)

Prerequisite: PEB 10505 or equivalent.

13009 Water Polo (1)

Introduce the skills, conditioning, rules, strategies, and team play of water polo. Prerequisite: Ability to swim 500 yards and tread water for 5 minutes.

13010 Judo-Akido (1)

Prerequisite: None.

13012 Backpacking (2)

Trip planning and leadership, equipment and clothing selection, safety considerations, search and rescue, environmental ethics, map and compass, weekend backpacking trip. Prerequisite: Student must supply equipment.

13013 Canoeing (2)

Basic paddling skills learned in a pool environment and then experienced in open lakes and white water situations. Canoe rental fee assessed. Prerequisite: Swim 100 yards and tread water 5 minutes fully clothed. Special fee: \$20.00/cr.hr. — subject to change.

13015 Field Hockey—Varsity (1)

Controlled registration.

13016 Cycling (1)

Prerequisite: None.

13017 Volleyball—Varsity (1)

Controlled registration.

13018 Ice Dancing (1)

Prerequisite: None.

13019 Basic Roller Skating (1)

Instruction in basics of skating with an introduction to dance skating. Prerequisite: None. Special fee: \$30.00/cr.hr. — subject to change.

13020 Basic Dance Roller Skating (1)

Instruction in beginning/intermediate techniques in dance skating. Prerequisite: PEB 13019 or audition. Special fee: \$30.00/cr.hr. — subject to change.

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, ropecraft, fire building, cooking, campsite management, equipment selection, safety considerations, environmental ethics, and map and compass for use on weekend trip. Prerequisite: Student must supply own clothing and shelter.

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. Prerequisite: Swim 100 yards and tread water 5 minutes fully clothed. Special fee: \$20.00/cr.hr. — 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. Prerequisite: Swim 100 yards and tread water 5 minutes fully clothed.

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. Prerequisite: Student must supply equipment.

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.

25001 Officiating Sport Activities (1-2)

Individual prescriptions for certification in officiating the following sports: basketball, baseball, field hockey, football, gymnastics, etc. Prerequisite: None.

25020 Physical Education in Special Education (2)

Perceptual motor activities, basic movement, fundamental skills, games, and rhythms. Selection of activities for exceptional children based on total growth patterns. Prerequisites: Major in EMR, TMR, learning disabilities, behavior disorders, or hearing impaired programs.

25025 Seminar on Teaching in Physical Education (3)

A seminar focused on the inquiry of teaching and learning of movement activities. A study of the role of the teacher, teacher behaviors, learning environments in movement activities and technology applications in physical education. Prerequisite: EDPF 29525 or co-requisite; all of the PEP 15010 to 15017.

25026 Overview of Outdoor Pursuits and Adventure Education (2)

An overview of outdoor pursuits and adventure education. This course includes a required three-day (forty-eight-hour) weekend at an outdoor adventure education center. Prerequisite: None. Special Fee: \$37.50/cr. hr.—subject to change. Prerequisite: None.

25033 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.

25051 Human Anatomy (3)

Structural analysis of the major organ systems of humans. Emphasis is placed on osteology, arthrology, myology, nervous system, and cardio-pulmonary systems. Lecture and laboratory. Prerequisite: None.

25055 Advanced Gymnastics (1)

Theoretical and practical approach to participating in gymnastics based on the individual's previous experience and skill level. Prerequisite: Adequate previous experience.

25059 Sport in Society (3)

Analysis of the role and significance of sport in modern societies. The focus of inquiry is the relationship between sport, social groups, institutions, organizations, and processes. Prerequisite: None.

25068 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.

25080 Advanced Folk, Social, and Square Dance (1)

Advanced national dances, advanced American square dances, advanced variation of current ballroom dances; teaching skills. Organization of dance as recreational activity. Prerequisites: PEB 10103, 10405, or equivalent.

25092 Practicum in Gymnastics— Children's Program (1)

Teaching recreational preschool through high school children's gymnastics. Prerequisites: PEB 11104, PEP 35043, or equivalent.

35010 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 course graduation requirement with approval of major department.

35022 Content and Methods for Elementary Physical Education (3)

Content and methods for elementary physical education. Prerequisites: C&I 20000; EDPF 28911, 29515, and 29592.

35040 Coaching Football (2)

Techniques of coaching football, including film analysis and offensive and defensive skills and systems. Prerequisite: Not open to freshmen.

35041 Coaching Soccer (2)

Coaching soccer, including analysis of skills, strategy, and administrative responsibilities. Prerequisite: Not open to freshmen.

35042 Coaching Volleyball (2)

Coaching volleyball, including analysis of skills, offensive and defensive strategy, and administrative responsibilities. Prerequisite: Not open to freshmen.

35043 Coaching Gymnastics (2)

Philosophy, fundamentals, skill analysis, spotting, conditioning, administrative and organizational responsibilities. Prerequisite: Not open to freshmen.

35044 Coaching Basketball (2)

Philosophy, fundamentals, strategy, administrative responsibilities, and conditioning. Prerequisite: Not open to freshmen.

35045 Coaching Wrestling (2)

Fundamental skill development, skill analysis, diet and weight control, team selection methods, and administrative responsibilities. Prerequisite: Not open to freshmen.

35046 Coaching Swimming and Diving (2)

Stroke analysis, coaching techniques, training and conditioning, organization of practice, conducting meets. Diving analysis and coaching. Prerequisite: Not open to freshmen.

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.

35051 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 15013, 15014, 15015, 15016, 15017, 25033, and admitted to professional education.

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 35051.

35053 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 15010, 15013, 15014, 15015, 15016, 15017, 25033, and admitted to professional education.

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 graduation 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: BSCI 20020.

40612 Practicum in Research Fitness Programs for the Elderly (3)

A practicum experience in which students will prescribe, supervise, and evaluate older adults during exercise. Laboratory experiences are required in the physiology and cognitive areas. "S/U" grading. "IP" grading permissible. Prerequisite: None.

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.

45015 Psychology of Coaching (3)

Psychological factors affecting athletic performance, with particular attention to practice factors, personality, motivation, and problem athletes. Prerequisite: Junior standing.

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.

45022 Event Planning and Production (3)

Students will learn the proper planning process that all sport events undergo. Students will then apply these concepts in actual events that they develop and hold. Prerequisite: Senior standing.

45023 Sport Marketing (3)

Analysis of marketing from a sport manager's perspective. Emphasis on marketing strategy and tactics in sport delivery systems. Extensive use of case studies. Prerequisite: Senior standing.

45032 Evaluation of Motor Development and Performance (2)

Evaluation techniques in the assessment of perceptual-motor deficits and remedial programming implications. Prerequisite: PEP 25033.

45036 Athletic Training (3)

Athletic training as a profession. Clinical experience in taping, fitting protective equipment, and first aid. Prerequisites: PEP 25051 and 25052.

45037 Adapted Physical Education (3)

An academic and practical approach to physical education for specific disorders. Field based experience (10 hours). Prerequisites: PEP 25051 and 25052.

45038 Advanced Athletic Training (3)

Advanced athletic training techniques related to the assessment, treatment and rehabilitation of athletic injury. Investigation into current philosophies and legal aspects of sport medicine. Organization of athletic training programs. Prerequisite: PEP 45036.

45039 Therapeutic Modalities and Rehabilitation (3)

Athletic training techniques related to the treatment and rehabilitation of athletic injury. Investigation into basic theory and current philosophies of the physical agents used in treatment. Prerequisite: PEP 45036

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 15013, 15014, 15015, 15016, 15017, and admitted to professional education.

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 15013, 15014, 15015, 15016, 15017, and admitted to professional education.

45065 Exercise Testing (3)

Lecture and laboratory experiences dealing with the administration and interpretation of exercise tests. Prerequisites: PEP 35075 and 45080.

45080 Physiology of Exercise (3)

Response of the human to acute and chronic exercise with emphasis on the underlying physiological mechanisms. Prerequisite: 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" grading permissible. Prerequisite: Senior standing.

45092 Internship in Physical Education (2-8)

(repeatable for a total of 8 hours) Supervised full-time experience providing knowledge of overall operations for an agency or sports program in an approved setting. Fifty (50) work hours per credit hour. "S/U" grading. "IP" grade permissible. Prerequisites: Senior standing and permission.

45096 Individual Investigation in Physical Education (1-3)

(repeatable for a total of 6 hours) "IP" grade permissible. Prerequisite: Junior standing or permission.

45292 Internship in Athletic Training (2-10)

(repeatable for a total of 10 hours) Internship in approved athletic training programs. Sixty clock hours required for each credit hour. "S/U" grading. "IP" grade permissible.

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.

45490 Internship Seminar (1)

(repeatable for a total of 3 hours) Discussion of procedures and expectations for internships in exercise programming. "S/U" grading. Prerequisite: PEP 35075 and an Exercise Sciences concentration.

45492 Internship in Physical Fitness/Cardiac Rehabilitation (2-8)

(repeatable for a total of 8 hours) Supervised experience providing practical experience in administering and operation of programs in physical fitness, health enhancement, and/or cardiac rehabilitation. "S/U" grading. "IP" grade permissible. Prerequisite: PEP 45490.

45592 Internship and Organization of Elementary School Physical Education (4)

Supervised laboratory experiences. Integration of organization, administration and teaching of elementary school physical education. "IP" grade permissible. Prerequisites: Junior standing.

46095 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: Co-requisite with SEED 42357.

49526 Student Teaching in Physical Education (12)

This experience provides for a full semester of student teaching in a school setting that is co-requisite with PEP 49525 Inquiry into Professional Practice in Physical Education. "S/U" grading. "IP" grade permissible. Prerequisite: Eligibility for admission to student teaching, Co-requisite PEP 49525.

PHYSICAL SCIENCE (PSCI)

NOTE: Since Physical Science 11660, 11661 represent a partial overlapping of the material in beginning courses in chemistry and physics, no student should take both physical science and either general chemistry or general physics. Ordinarily, credit will not be allowed for such duplication. Any student affected by this principle should consult promptly with the chairperson of the Department of Chemistry or Physics.

11660 Physical Science (3)

A course integrating basic concepts in chemistry, physics and astronomy. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

11661 Physical Science (3)

A course illustrating fundamental topics in chemistry, earth science, and astronomy. Prerequisite: PSCI 11660. This course may be used to satisfy the Liberal Education Requirements.

**Courses offered only at Regional Campuses.*

PHYSICAL THERAPY ASSISTING TECHNOLOGY (PTAT)***10000 Introduction to Physical Therapist Assisting (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: Admission to the program. Special Fee: \$6.25/cr. hr. — subject to change.

10002 Analysis of Movement (4)

Function of the human body with emphasis on the musculoskeletal system. Gross body measurements. Prerequisite: BSCI 20020.

10003 Clinical Conditions I (3)

Introduction to medical conditions commonly encountered in the practice of physical therapy which affect the integumentary, cardiovascular, pulmonary, and endocrine systems. Prerequisite: PTAT 10001; corequisites: PTAT 10002 and 10004.

10004 Physical Therapy Procedures I (5)

Theory and techniques of treatment procedures. Maintenance of equipment and supplies. Introduction to practice of physical therapy procedures in a clinical setting. "IP" grade permissible. Prerequisite: PTAT 10001; corequisites: PTAT 10002 and 10003. Special Fee: \$5.00/cr. hr. — subject to change.

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. Development of communication skills and interpersonal relationships. Prerequisite: None.

20003 Clinical Conditions II (3)

Continued study of medical conditions commonly encountered in the practice of physical therapy. Focus on orthopedic, neurologic, and pediatric problems. Prerequisite: PTAT 10003.

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: PTAT 10004. Special Fee: \$6.25/cr. hr.—subject to change.

20005 Directed Practice in Physical Therapy I (4)

Discussion and practice of physical therapy procedures and techniques in an institutional setting under the supervision of a licensed physical therapist. Prerequisite: PTAT 10004; corequisites: PTAT 20003 and 20004.

20006 Physical Rehabilitation Procedures (4)

Principles and techniques of therapeutic exercise and rehabilitation in physical therapy. Prerequisite: PTAT 20005. Special Fee: \$6.25/cr. hr.—subject to change.

20007 Directed Practice in Physical Therapy II (8)

Continued discussion and practice of physical therapy procedures and techniques in an institutional setting under the supervision of a licensed physical therapist. Prerequisite: PTAT 20005.z

PHYSICS (PHY)

Physics 23101-2, which uses the calculus, should be taken by majors in physics, mathematics, chemistry B.S., industrial technology science option, aerospace science option, and pre-engineering.

Physics 13001-2 does not require the use of calculus.

Credit will not be granted for both the Physics 13001-2 and the 23101-2 series nor for both Physics 13001-2 and Physical Science 11660-1.

11030 Seven Ideas that Shook the Universe (3)

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.

11115 Hands-On Energy (2)

Conceptual approach using lectures, films, lecture demonstrations, hands-on demonstrations to cover work, energy, power, heat, wave motion, electricity, magnetism, light and other radiant energy, nuclear physics. Not counted toward Physics major. 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: Admission to health technology program.

12201 Technical Physics I (3)*

Introduction to principles of physics: mechanics. Two hours recitation, 2 hours laboratory weekly. Pre- or corequisite: MATH 19001 or 12001.

12202 Technical Physics II (4)*

Introduction to principles of physics: fluids, thermodynamics, electricity and magnetism. Two hours recitation, 2 hours 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 hours lecture, 2 hours laboratory weekly. Prerequisite: None.

13001 General College Physics I (5)

Principles of mechanics, heat, and sound. Three hours lecture, 1 hour recitation, 2 hours laboratory (see PHY 13021) weekly. This course may be used to satisfy the Liberal Education Requirements. Pre- or corequisite: MATH 12001 or permission.

13002 General College Physics II (5)

Principles of electricity and magnetism, optics, and modern physics. Three hours lecture, 1 hour recitation, 2 hours laboratory (see PHY 13022) weekly. Prerequisite: PHY 13001 or 23101. This course may be used to satisfy the Liberal Education Requirements.

13021 General College Physics Lab I (0)

Required laboratory component of PHY 13001. Credit and grade for lab are subsumed within credit and grade for PHY 13001 on student's transcript. Corequisite: PHY 13001.

13022 General College Physics Lab II (0)

Required laboratory component of PHY 13002. Credit and grade for lab are subsumed within credit and grade for PHY 13002 on student's transcript. Corequisite: PHY 13002.

20095 Special Topics (1-3)

Topic announced when scheduled. Prerequisite: None.

21030 Energy and the Environment (3)

Introduces the nonscience student to the physical consequences to environment resulting from society's use of various forms of energy (e.g., fossil, nuclear, solar, etc.). Not counted toward requirements for major in Physics. Prerequisite: None.

21040 Physics in Entertainment and the Arts (3)

Descriptive introduction to physics underlying selected forms of art and entertainment. Examples are drawn from music, visual arts, and communications media. Not counted toward requirements for major in Physics. Prerequisite: None.

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.

22811 Forensic Physics (4)

Fundamental physical concepts are related to potential job activities of criminal justice studies students (e.g., evidence analysis, ballistics, auto collision analysis, radioactive materials accidents). Three hours lecture, 2 hours laboratory weekly. Prerequisite: None.

23101 General University Physics I (5)

Principles of mechanics, heat, and sound at calculus level. Four hours lecture-recitation and 3 hours laboratory weekly. Prerequisite: MATH 12002 or corequisite MATH 12002 with department approval.

23102 General University Physics II (5)

Principles of electricity, magnetism, light, and modern physics at calculus level. Four hours lecture-recitation and 3 hours laboratory weekly. Prerequisites: PHY 13001 or 23101; MATH 12003 or corequisite MATH 12003 with department approval.

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 12001 or permission.

30020 Intermediate Physics Lab (2)

(repeated registration permitted) Experiments in classical and modern physics are selected to accompany and to supplement junior-level physics courses. Letter grades and "IP". Prerequisite: One year of physics. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

30095 Special Topics (1-3)

Topic announced when scheduled. Prerequisite: Permission.

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: MATH 12002 and PHY 13002 or 23102.

32551 Applied Engineering Mechanics (3)

Analytical mechanics including both statics and dynamics. Not counted toward major in physics. Prerequisites: PHY 13001, 13002; MATH 12002.

32562 Aerodynamics (3)

Multispeed aerodynamics including topics in fluid mechanics, airfoil and wing theory, stability and control, performance, and aerodynamic loads. Prerequisites: MATH 12001 and PHY 13001/2 or PHY 23101/2.

32564 Materials Physics (3)

Structure, thermal and magnetic properties of matter, and interaction of radiation with matter in terms of fundamental concepts of atomic and condensed matter physics. Prerequisite: PHY 36001.

35101 Mechanics I (3)

Intermediate course in mechanics stressing problems involving point masses in inertial reference frames. Problem solving techniques are emphasized. Prerequisites: MATH 22005 and one year of physics.

35102 Mechanics II (3)

Sequel to PHY 35101 stressing motions of multiparticle systems and rigid bodies in inertial and accelerating reference frames. Prerequisites: PHY 35101, MATH 22005.

35402 Scientific Computing (2)

Solution of scientific problems with a PC using QBASIC or C language. Includes applications to integral and differential equations of physical sciences. "IP" grade permissible. Prerequisites: MATH 22005, 1 year of physics, proficiency in computer language such as BASIC, FORTRAN, or PASCAL.

35501 Waves (3)

Properties and applications of vibrating systems and waves; superposition, normal modes, Fourier analysis, energy and momentum, dispersion, polarization, refraction, interference, diffraction, holography. Prerequisites: MATH 12003 and PHY 35101.

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 computer language proficiency (e.g. BASIC, FORTRAN, PASCAL).

36001 Introductory Modern Physics (3)

Special theory of relativity, Rutherford-Bohr model of atom, quantization of light, matter waves, Schroedinger equation, hydrogen atom, electron spin, multi-electron atoms. Prerequisites: MATH 12003 and PHY 23102, or permission.

40020 Advanced Physics Lab (2)

(repeated registration permitted) Advanced experiments in classical and modern physics are selected to accompany and to supplement senior-level physics courses. Prerequisite: 12 hours of 30000-level physics courses; pre-/corequisite: 6 hours of 40000-level physics courses or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

40060 Physical Literature (1-3)

Study of current or topical literature. Prerequisite: Permission.

40093 Variable Title Workshop in Physics (1-6)

Workshop individually designed to provide instruction and training in specific areas of physics. Prerequisite: Permission.

40095 Special Topics (1-3)

Topic announced when scheduled. Prerequisite: Permission.

40096 Individual Investigation (1-6)

Individual projects for Physics majors. "IP" grade permissible. Prerequisite: Twenty hours of physics, permission 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. "IP" grade permissible. Prerequisites: Honors senior standing, departmental and Honors Division consultation and approval prior to first semester of senior year; formal petition.

40195 Special Topics (1-3)

Topic announced when scheduled. Prerequisite: Permission.

42020 Applied Physics Laboratory (2)

(repeated registration permitted) Experiments using various research techniques at advanced level. Letter grades and "IP". Prerequisite: Two years of physics. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

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. Letter grades and "IP". 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 2 hours, laboratory 4 hours weekly. Letter grades and "IP". Prerequisite: PHY 32511 or permission.

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, 4 hours lab weekly. "IP" grade permissible. Prerequisite: Computer language proficiency (e.g., BASIC, FORTRAN, PASCAL).

44802 Astrophysics (3)

Galactic structure, stellar formation and evolution, origin of the elements (or nucleosynthesis), nonoptical astronomies, and description of various cosmological theories. Prerequisites: MATH 12003 and a major or minor in the physical sciences or technology or consent of instructor.

45201 Electromagnetic Theory I (3)

Properties of electric and magnetic fields developed by vector methods. Emphasis is on static fields in both vacuum and matter. Prerequisite: Permission.

45202 Electromagnetic Theory II (3)

Sequel to PHY 45201 continuing development of theory of classical electromagnetic fields with emphasis on dynamic fields. Prerequisite: PHY 45201 or permission.

45301 Thermodynamics (3)

Fundamental concepts in thermodynamics from a macroscopic as well as statistical approach. Includes applications to engineering. Prerequisites: MATH 22005 and one year of physics.

45403 Computer Analysis of Experimental Measurements (2)

Applications of the minicomputer to the reduction and analysis of data. Error analysis, root-finding, curve-fitting, smoothing of data. Prerequisites: MATH 22005 and PHY 35402 or equivalent.

45501 Fundamentals of Modern Optics (3)

Emission and propagation of coherent and incoherent light; and nonlinear optical effects; introduction to devices and spectroscopic techniques based on modern optics. Prerequisite: PHY 45201.

45612 Microprocessor-Based Design II (3)

Design, construction, programming, and interfacing of micro-controllers based on a sixteen-bit microprocessor. "IP" grade permissible. Prerequisite: PHY 35611 or permission.

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 Eisberg-Resnick's Quantum Physics. Prerequisite: PHY 36001.

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; MATH 22005 or permission.

46401 Introduction to Solid State (3)

Crystal structure, crystal diffraction and reciprocal lattice, crystal binding, phonons and lattice vibrations, Fermi gas, energy bands. Prerequisites: Eighteen hours of physics, MATH 22005 or permission.

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.

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.

POLITICAL SCIENCE (POL)**10101 Critical Issues in American Politics (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.

10110 American National Government (3)

This course examines the constitutional and institutional structures of the federal government of the United States; the functioning of the public policy process; and, the political behaviors of interest groups, office holders, and the electorate. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

10410 Introduction to 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.

10510 Introduction to Politics (3)

World's major patterns of government, distinguishing between cabinet, parliamentary, presidential, authoritarian, and totalitarian systems; institutions and dynamics of each. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

20224 State and Local Government (3)

Study of states and administrative subdivisions within the federal system, institutional framework and heritage, major performance areas, and the ways the individual and groups influence policy. Prerequisite: None.

20661 Introduction to Political Thought (3)

Presents alternative theories of politics, their values and justifications, and examines their political importance. Prerequisite: None.

20760 Political Analysis (3)

This course teaches quantitative techniques for analyzing and reporting political relationships, utilizing computer-based applications of basic statistical methods to real-world, political data. Prerequisite: None.

30110 The Congress (3)

Legislative problems and procedures of congress. Prerequisite: POL 10110 or permission.

30117 U.S. Political Parties (3)

Designed to introduce students to American electoral politics and the changing place of the political parties in the American system of government. Prerequisite: POL 10110 or permission.

30118 Interest Groups and the Political Process (3)

Structure and political role of pressure groups. Tactics and influence. Covers lobbying and electoral activities of groups. Prerequisite: POL 10110 or permission.

30221 Municipal Government (3)

Organizational forms of municipalities, their place in the federal system, the process of decision-making and implementation, and proposed solutions to problems of an urban society. Prerequisite: POL 10110 or permission.

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: None.

30431 International Organization (3)

Analysis of various types of regional and universal organizations in international system. Primary emphasis given to United Nations and European community. Prerequisite: POL 20431 or permission.

30432 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 20431 or permission.

30443 Problems of International Organization (5)

Intensive study of major European problems handled by international organizations, including the United Nations, and nongovernmental organizations. Combines classroom and field investigations. Prerequisite: Registration in the Geneva Semester.

30543 Politics of Russia and the Commonwealth States (3)

Intensive analysis of the Russian political system and selected commonwealth states in a comparative framework. Primary focus on political culture, socialization and recruitment, inputs, outputs, and total system. Prerequisite: POL 20550 or junior/senior standing or permission.

40093 Variable Title Workshop in Political Science (1-6)

Prerequisite: None.

40111 Political Campaign Management (3)

Analyzes essential factors in efficiently run election campaign: Public relations, advertising, funding, scheduling, voting district patterns, using lectures, and specific exercises on selected factors. Prerequisite: POL 10110 or permission.

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 10110 or permission.

40114 The Presidency (3)

Intensive study of the American presidency, focusing on personality, organization of the office, use and misuse of power, and policy making. Prerequisite: POL 10110 or permission.

40116 Public Opinion and Political Behavior (3)

Analysis of determinants of public opinion and political behavior. Study of how public makes up its mind and impact of public opinion on government policy. Prerequisite: POL 10110 or permission.

40117 Political Cartooning (3)

This course will provide an overview of the history, methodology, and aesthetics of American political cartooning. Prerequisite: POL 10110 or consent of instructor.

40180 The Judicial Process (3)

Intensive study of the judicial process in United States and the relationship between the judicial system and the larger American social system. Prerequisite: POL 10110 or permission.

40182 Constitutional Law: Governmental Structures and Functions (3)

Nature and scope of constitutional government. Study of judicial review, separation of powers, federalism, commerce, and taxation. Prerequisite: POL 10110 or permission.

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 10110 or permission.

40221 Comparative State Politics (3)

Comparative analysis of state political systems, including political cultures, political parties, pressure groups, executives, legislatures, judiciaries, and selected state policies. Prerequisite: POL 10110, or 20224, or 30221, or permission.

40302 Urban Administration (3)

Develops conceptual framework for administration of government services at municipal level. Emphasis on interaction of various levels of government and urban functions and processes. Prerequisite: None.

40303 Governmental Financial Management (3)

Study of theory and techniques of governmental budgeting and financial management, including how to control, manage and plan finances of public and quasi-public services. Prerequisite: POL 30301 or permission.

40304 Public Bureaucracy (3)

Nature and function of modern bureaucracy in the United States. Relationship of bureaucracy to the political process and administrative law. Prerequisite: POL 30301 or permission.

40305 Public Planning Administration and Management (3)

Urban and regional planning as an administrative function. Emphasis on management processes; promotes planning skills and knowledge of administrative realities of planning process. Prerequisite: POL 30301 or permission.

40306 Long-Term Care Administration (3)

Presents policies involved in long-term care administration. Includes federal and state regulations; care plan administration; government reimbursement and the Medicare-Medicaid system; departmental organization; and management. Prerequisite: Any prior political science course, gerontology major, or permission.

40430 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 20431 or permission.

40431 Understanding War (3)

Examines central questions concerning the justification, explanation, characteristic features, and consequences of war. Specific cases will be examined, such as WWI, the Chinese Revolution, Vietnam's Civil War and potential nuclear war. Prerequisite: POL 20431 or permission.

40434 Politics of the World 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 20431 or permission.

40435 Introduction to International Law (3)

Introduction to public international law, the law governing relations between and among sovereign states as one dimension of the international political system. Prerequisite: POL 20431 or permission.

40436 Conflict and Cooperation in World Politics (3)

(cross-listed with CACM 40436) Elementary game theory is used to investigate interstate conflict and cooperation in world politics. Topics include arms races, arms control, free trade and peace, free trade and imperialism, and hegemonic security and economic regimes. Prerequisite: POL 20431 or permission.

40437 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 20431 or permission.

40438 International Relations of Europe (3)

An analysis of the international relations among the states of Europe including the various international organizations within Europe. Prerequisite: POL 20431 or permission.

40441 African International Relations (3)

Examines broad analytical and historical themes in international relations of African states. Prerequisite: POL 20431 or permission.

40541 Government and Politics of China (3)

The development of Chinese politics from the nineteenth century to the present. Special emphasis on the problem of authority and state-society relations. Prerequisite: POL 20550, or junior/senior standing, or permission.

40543 Governments and Politics of Emerging Asia (3)

Examines India plus selected states that represent major Asian governmental forms including open democracies, authoritarian and communist systems focusing on institutions, issues, processes, political culture. Prerequisite: POL 20550, or junior/senior standing, or permission.

40550 Governments of Europe (3)

Examines British, French, German, Italian and other selected state systems, status and problems of European integration, political influences of other regional and international movements. Prerequisite: POL 20550, or junior/senior standing, or permission.

40551 Government and Politics of South America (3)

Analysis of political process in selected South American nations, with particular emphasis on Argentina, Brazil, Chile, and Venezuela. Prerequisite: POL 20550, or junior/senior standing, or permission.

40552 Government and Politics of Northern Latin America (3)

Analysis of political process in Mexico, Central America, and Caribbean with particular emphasis on the unique examples of Mexico, Costa Rica, and Cuba. Prerequisite: POL 20550, or junior/senior standing, or permission.

40553 Governments and Politics of the Middle East (3)

Subregional patterns and individual state systems of traditional societies challenged by modernization; roles of western influence, religious, military, administrative, public sectors. Prerequisite: POL 20550, or junior/senior standing, or permission.

40554 Comparative Studies in Political 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 20550, or junior/senior standing, or permission.

40555 Workplace Democracy (3)

This course examines the theory and practice of extending democracy into the workplace from the shop floor to the boardroom in Germany, Sweden, Yugoslavia, and the United States. Prerequisite: POL 20550, or junior/senior standing, or permission.

40557 Scandinavian Politics (3)

Examines modern politics in Denmark, Norway, Sweden, including the unique institutional arrangements and policies of Social Democratic governments that differentiate Scandinavian politics from politics elsewhere. Prerequisite: POL 20550, or junior/senior standing, or permission.

40558 African Political Systems (3)

Survey of governments of sub-Saharan Africa with special emphasis on political groups and dynamics of modernization. Prerequisite: POL 20550, or junior/senior standing, or permission.

40562 Comparative Labor Movements (3)

Comparative examination of labor movements from origins to present, includes theory, parties, trade unions, and cooperatives in democracies, Communist countries, and the Third World. Prerequisite: POL 10110 or 20550, or junior/senior standing, or permission.

40563 Human Rights and Third World Development (3)

An analysis of the complementary relationship between the attainment of human rights and third world development. Prerequisite: POL 20550 or permission.

40564 Women and Political Development (3)

A comparative analysis of the roles of women in the process of political development. Prerequisite: POL 20550 or permission.

40565 Political Movements (3)

An analysis of theories of political movements examining the origins and patterns of political movements, such as national, peasant, religious, and ethnic movements using examples from developed and developing countries. Prerequisite: POL 20550 or permission.

40661 Classical Political Thought (3)

Major themes of political theory from classical antiquity to Middle Ages: Plato, Aristotle, Cicero, St. Augustine, St. Thomas, and Dante. Prerequisite: POL 20661, or junior or senior standing, or permission.

40662 Modern Political Thought (3)

Major themes of modern political thought, especially social contract and constitutional theories: Machiavelli, Luther, Calvin, Hobbes, Locke, Rousseau, Burke, and Kant. Prerequisite: POL 20661, or junior or senior standing, or permission.

40663 Recent Political Thought (3)

Major themes of recent political thought (democratic, conservative, socialist, anarchist, and totalitarian thought): Hegel, Marx, Kropotkin, Dewey, Niebuhr, Lippmann, Mill, Lenin and Mao. Prerequisite: POL 20661, or junior or senior standing, or permission.

40666 American Political Ideas (3)

Major political ideas and controversies associated with the development of American political thought. Prerequisite: POL 20661, or junior or senior standing, or permission.

40771 Women and Politics (3)

Examines origins, development, current record of century-old women's movement unique in U.S. annals; compares it with other contemporary social movements. Prerequisite: POL 10110 or permission.

40891 Seminar in Political Science (3)

(repeatable with permission) A required, writing-intensive seminar for junior and senior political science majors. The focus of the seminar will vary depending on instructor. Prerequisite: Political Science major, completed lower-division requirements, and junior or senior standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

40896 Individual Investigation (1-3)

For students desiring research into subjects beyond level of completed course work, or on subjects for which no regular course is offered. Prerequisite: Permission.

40991 Washington Program in National Issues (2-15)

Annual Spring Semester resident-study in Washington, D.C. Credit hours divided among three study units: observation of political processes; individual-group interviews; individual investigation. Prerequisites: Junior standing; 2.50 GPA; permission of the director.

40992 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. Prerequisite: Permission.

40995 Selected Topics in Political Science (3)

Special course, not regularly offered. Subject varies depending on the emerging issue, staff availability and competencies. Precise title always listed in the Schedule of Classes. Prerequisite: Junior or senior standing or permission.

PORTUGUESE (PORT)

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

17201 Elementary Portuguese I (4)

An introduction to the Portuguese language in the context of Luso-Brazilian cultures. Prerequisite: No previous formal training in Portuguese. This course may be used to satisfy the Liberal Education Requirements.

17202 Elementary Portuguese II (4)

A continuation of the introduction to the Portuguese language in the context of Luso-Brazilian cultures. Prerequisite: PORT 17201 or equivalent. This course may be used to satisfy the Liberal Education Requirements.

27209 Field Study (1-6)

(repeatable for a total of 6 hours) For residence and/or field research in a Portuguese-speaking community. Prior to registration for this course, student must obtain departmental approval. Prerequisite: One year of college language or equivalent.

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 or permission.

37143 The African-Brazilian Experience in Culture and Literature (3)

(cross-listed with HIST 31143, PAS 37143, and SPAN 38143.) Interdisciplinary approach to the study of the African-Brazilian experience, from the colonial period to the present, as reflected in selected literary, sociocultural, and historical texts. Course taught in English. Prerequisite: Junior standing or permission.

37211 Composition and Conversation (3)

Study and practice of oral and written Portuguese. Prerequisite: PORT 27210 or permission.

37330 Early Brazilian Literature (3)

Outline of developments in Brazilian literature and reading of representative works from the Colonial period to 1922. Prerequisite: PORT 37211 or permission. This course may be used to satisfy the writing-intensive course graduation 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 or permission. This course may be used to satisfy the writing-intensive course graduation 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 or permission.

47093 Variable Title Workshop in Portuguese (1-6)

Workshops individually designed to provide instruction and training in specific areas of Portuguese studies. Prerequisite: Departmental permission.

47095 Selected Topics (3)

Intensive treatment of a selected aspect of Luso-Brazilian literature or linguistics. Topic announced in the *Schedule of Classes*. Prerequisite: Nine hours of 3000-level courses.

47096 Individual Investigation (1-3)

(repeatable for a total of 6 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 or equivalent; junior standing; permission.

PSYCHOLOGY (PSYC)**11762 General Psychology (3)**

Introduction to the behavioral science approach to an understanding of human performance and potentials. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

20651 Child Psychology (3)

A description and analysis of child development from conception to age ten. This course may be used to satisfy the Liberal Education Requirements. Prerequisite: PSYC 11762.

20731 Educational Psychology (3)

Application of basic psychological principles to education. Emphasizes analysis of educational situations in terms of developmental, cognitive, behavioral, and social factors. Prerequisite: PSYC 11762.

21211 Psychology of Adjustment (3)

A review of the data, concepts, and theories of psychology that contribute to our understanding of human adjustment. This course may be used to satisfy the Liberal Education Requirements. Prerequisite: PSYC 11762.

21621 Quantitative Methods in Psychology I (3)

Application of quantitative methods in psychological research. Descriptive and inferential methods. Prerequisite: PSYC 11762.

21773 Applied Psychology (3)

Psychological fundamentals are viewed as valuable tools for use in a variety of settings. The practical application of psychology is stressed. Prerequisite: PSYC 11762.

30445 Cognitive Psychology (3)

Information-processing approaches to human thought. Focus on processes used to transform, store, manipulate, and retrieve sensory input. Topics include attention, pattern recognition, memory, and language. Prerequisite: PSYC 11762.

30461 Psychology of Language (3)

Relationship between language and its speakers. Emphasizes psychological experiments dealing with speech perception, sentence comprehension, semantics, language acquisition, and language and thought. Prerequisite: PSYC 11762.

30650 Developmental Psychology (3)

A survey of variables and factors affecting the processes underlying ontogenetic development across the life span. Prerequisite: PSYC 11762.

30651 Adolescent Psychology (3)

The physical, intellectual, educational, personality, and social development of adolescents in contemporary society. Prerequisite: PSYC 11762.

30821 Psychology of Motivation (3)

Factors that energize behavior, feeling states, and interpersonal processes. A survey approach is used to provide exposure to traditional and newly-emerging concepts in motivation. Prerequisite: PSYC 11762.

31043 Experimental Psychology: Basic Learning Processes (4)

Examination of basic principles of Pavlovian and instrumental conditioning. Emphasis on major empirical phenomena derived from research with animals and humans. Lab exercises are used to amplify lecture material. Prerequisites: PSYC 21621 and junior standing.

31141 Experimental Psychology: Perception (4)

Influence of environmental, physiological, and personal factors in reception, organization, and interpretation of stimuli. Lab exercises are used to amplify the lecture material. Prerequisites: PSYC 21621 and junior standing.

31498 Undergraduate Research (1-10)

(repeatable for a total of 16 hours) Individual research open to qualified students. "IP" grade permissible. Prerequisites: PSYC 11762 and permission.

31684 Quantitative Methods in Psychology II (3)

Small sample theory, binomial, analysis of variance, chi square, linear regression, nonparametric statistics. Prerequisite: PSYC 21621 or equivalent.

31773 Industrial Psychology (3)

A descriptive survey course directing attention to the application of principles, facts, and methods of the science of human behavior to people at work. Prerequisite: PSYC 11762.

40111 Abnormal Psychology (3)

Diagnostic characteristics, causes, and treatment of behavior disorders. Mild, moderate, and severe types of disturbances illustrated by cases and research studies. Prerequisites: PSYC 11762 and junior standing.

40231 Survey of Psychological Testing (3)

Use and interpretation of verbal, performance, personality, and clinical tests. Skills in using tests at professional level not given. Prerequisites: PSYC 11762 and 21621.

40383 Introduction to Clinical and Community Psychology (3)

History and overview of clinical and community psychology with attention to various theoretical approaches, clinical assessment and treatment procedures, and current trends. Prerequisites: PSYC 11762 and junior standing.

40563 Comparative Psychology (3)

Introduction to animal behavior and its development, mechanisms, evolutionary history and adaptive significance. Both learned and innate behaviors are treated. Prerequisites: PSYC 11762 and junior standing.

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.

40974 History of Psychology (3)

History of psychology in eighteenth, nineteenth and twentieth centuries. Emphasis upon emergence of modern experimental psychology. Prerequisites: PSYC 11762 and junior standing.

41282 Personality (3)

Introduction to major theories and research in personality. Prerequisite: PSYC 11762.

41363 Physiological Psychology (3)

Introduction to the physiological, biochemical, and neuroanatomical foundations of behavior. Special attention to central nervous system and its relation to behavior. Prerequisites: PSYC 11762 and junior standing.

41495 Special Topics in Psychology (3)

(repeated registration permitted) In-depth examination of particular topics of current interest to faculty and students. Specialized areas of research, theory or methodology may be covered. Specific topics announced. "IP" grade permissible. Prerequisites: Junior standing and permission.

41532 Social Psychology (3)

Study of interpersonal and group behavior, focusing on such topics as attraction, attitude change, helping, aggression, and conformity. Prerequisites: PSYC 11762 and junior standing.

41990 Writing in Psychology (1)

Writing-intensive course taken in conjunction with a 3 credit hour or 4 credit hour upper-division psychology course (except PSYC 31773 or 41993). Prerequisite: Departmental permission (controlled enrollment). This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

41993 Variable Title Workshop in Psychology (1-6)

Variable topic offered as need arises. Specific topics will be announced in the *Schedule of Classes*. Prerequisites: PSYC 11762 and permission.

RADIOLOGIC TECHNOLOGY (RADT)*

14000 *Introduction to Radiologic Technology (3)*

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 hours lecture, 3 hours laboratory weekly. Prerequisite: Admission to program.

14001 *Orientation to Clinical Radiography (2)*

Radiographic positioning of the chest and abdomen. Darkroom chemistry, beam restriction devices, and introduction to contrast mediums. One hour lecture, 3 hours laboratory weekly. Prerequisite: RADT 14000 and HED 14020.

14002 *Introduction to Patient Care (3)*

Medicolegal aspects of patient care, ethics, nursing procedures for radiographic examinations, techniques, radiography, and taking and recording vital signs. Introduction to venipuncture and clinical pharmacology. Prerequisite: RADT 14000 and HED 14020.

14004 *Radiologic Physics (4)*

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: Admission to program.

14010 *Clinical Education I (1)*

Supervised experience and observation with emphasis on basic radiological examinations, patient care, professionalism, and the procedures covered in RADT 14020. Competency testing begins. Assigned to a clinical education center 16-20 hours per week. Prerequisite: RADT 14001; corequisite: RADT 14020; and BSCI 11000.

14011 *Clinical Education II (1)*

Continuation of Clinical Education I, with emphasis on clinical practice of basic skills of radiologic technology and the examinations covered in RADT 14021. Competency testing continues. Assigned to a clinical education center 16-20 hours per week. Prerequisite: RADT 14010, 14019, 14020, BSCI 11000; corequisite: RADT 14021.

14012 *Clinical Education III (1)*

Continuation of Clinical Education II, with more emphasis on independent clinical practice of procedures previously mastered and problem solving. Competency testing continues. Assigned to a clinical education center for 40 hours per week for 5 weeks. Prerequisite: RADT 14011, 14021, 14022.

14013 *Clinical Education IV (1)*

Continuation of Clinical Education III, emphasis on individual performance and instruction of radiographic procedures and the ability to adapt to unusual situations. Competency testing continues. Assigned to a clinical education center for 40 hours per week for 5 weeks. Prerequisite: RADT 14012.

14019 *Radiographic Exposure and Imaging I (2)*

Brems and characteristic radiation, Planck's Quantum Theory, radiographic artifacts, silver recovery, intensifying screens, radiographic grids, preparation of exposure charts, and introduction to radiographic quality. Two hours lecture weekly. Prerequisite: RADT 14001; corequisite: RADT 14020.

14020 *Radiographic Procedures I (5)*

Radiographic anatomy and positioning of the upper and lower extremities, pelvic and pectoral girdles, skull, facial bones, sinuses, vertebral column, and bony thorax. Four hours lecture, 2 hours laboratory weekly. Prerequisite: RADT 14002; corequisite: BSCI 11000.

14021 *Radiographic Procedures II (4)*

Radiographic anatomy and positioning of the gastrointestinal system, urinary and biliary systems, and trauma patients. Three hours lecture, 2 hours laboratory weekly. Prerequisite: RADT 14020 and BSCI 11000.

14022 *Radiographic Exposure and Imaging II (3)*

Aspects of radiographic quality, fluoroscopic equipment, X-ray timers, and tomography. Experiments involving the factors that influence radiographic quality. Two hours lecture, 2 hours laboratory weekly. Prerequisite: RADT 14019.

21095 *Special Topics in Radiologic Technology (2-4)*

(repeated registration permitted) Student participation course on topics pertinent to radiologic technology. Topics are chosen by the instructor. Student may enroll in course more than once. Prerequisite: Permission of instructor.

24000 *Medical Terminology (2)*

Method of construction and recognition of medical terms from Greek and Latin prefixes, suffixes, word roots, and combining forms. Radiologic terminology is emphasized. Prerequisite: Admission to the program.

24001 *Radiologic Pathology (2)*

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; HED 14020; RADT 14020, 14021.

24002 *Radiation Protection (3)*

Fundamentals of radiation safety. Introduction to state and federal regulations. Radiation biology. A brief survey of biophysics. Introduction to radiation therapy and oncology. Prerequisites: BSCI 11000 and RADT 14004.

24010 *Clinical Education V (1)*

Continuation of Clinical Education IV, with emphasis on clinical practice and begin participation in procedures covered in RADT 14020. Competency testing continues. Assigned to a clinical education center 24 hours per week. Prerequisite: RADT 14013; Corequisite: RADT 24020.

*Courses offered only at Regional Campuses.

24011 Clinical Education VI (1)

Continuation of Clinical Education V, emphasis on advanced clinical practice. Independent performance on radiographic examinations, participation in specialized radiographic areas covered in RADT 24020. Assigned to a clinical education center 24 hours per week. Prerequisites: RADT 14004, 24001, 24010, 24020; corequisite: RADT 24022.

24020 Radiographic Procedures III (4)

Advanced radiographic procedures of the nervous, circulatory, urinary, reproductive and digestive systems. Pediatric and geriatric radiography and specialized procedures and equipment. Prerequisite: RADT 14021.

24022 Radiographic Exposure and Imaging III (3)

Evaluation of radiographic systems to assure consistency in the production of quality images. Two hours lecture, 2 hours laboratory weekly. Prerequisite: RADT 14022.

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.

REAL ESTATE AND RELATED TECHNOLOGIES (RERT)***11000 Real Estate Principles and Practices (2)**

Introduction to listing, selling, real estate math, legal descriptions of property and contracts. Prerequisite: None.

11001 Real Estate Law (2)

Review of basic Ohio laws covering the functions of an agency and the legal aspects of real estate transactions. Prerequisite: RERT 11000 or permission.

11003 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, 11001, 11003, 21000.

REHABILITATION COUNSELING (RHAB)**47794 The Rehabilitation Community (3)**

Introduction to the philosophy and practice of rehabilitation in the United States. Economic, legal, political, and historical influences on disability policy and programs are studied. Prerequisite: None.

RUSSIAN (RUSS)

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

The following course is taught in English and does not presuppose a preparation in the language: Russian 32501.

12201 Elementary Russian I (4)

An introduction to the Russian language in the context of Russian cultures. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

12202 Elementary Russian II (4)

A continuation of the introduction to the Russian language in the context of Russian cultures. Prerequisite: RUSS 12201. This course may be used to satisfy the Liberal Education Requirements.

22201 Intermediate Russian I (3)

Continued development of speaking, listening, reading, and writing skills using a variety of cultural materials. Prerequisite: RUSS 12202 or equivalent.

22202 Intermediate Russian II (3)

Continuation of RUSS 22201. Prerequisite: RUSS 22201 or equivalent.

22260 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 or equivalent.

32207 Russian Conversation (2)

Practice in conversational Russian. Prerequisite: Corequisite: RUSS 22202

32211 Composition and Conversation (3)

Grammar review and practice in composition and conversation. Prerequisite: RUSS 32207.

32215 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 32207.

32231 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.

32240 Conversation for Business and Special Purposes: Russian (3)

Introduction to the special vocabulary of business and other special subject areas; introduces 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 or permission. This course may be used to satisfy the writing-intensive course graduation 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 or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

32350 Russian Prose (3)

Reading and critical analysis of major prose works. Prerequisite: RUSS 32303 or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

32354 Russian Drama (3)

Reading and critical analysis of major plays. Prerequisite: RUSS 32303 or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

32421 Russian Civilization (4)

A survey of Russian history and intellectual life. Prerequisite: RUSS 32303 or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

32501 Russian Literature in English (3)

Reading and analysis of major works of Russian literature in English translation. No knowledge of Russian required. May not be counted toward the major or minor. Prerequisite: Junior standing or permission.

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. Prerequisite: Departmental permission.

42095 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 or permission.

42096 Individual Investigation (1-3)

Independent investigation of problems in Russian language or literature. "IP" grade permissible. Prerequisites: Six hours of upper-division Russian and permission of the department chairperson.

42211 Advanced Composition and Conversation (3)

A continuation of RUSS 32211. Prerequisite: RUSS 32211 or permission.

42230 Advanced Translation Practice: Russian (3)

Practice course that emphasizes skill-building in foreign language-to-English translation of a selection of texts in business, technology, medicine, and law. Prerequisite: RUSS 32231.

42240 Business and Special Texts: Russian (3)

Survey of the typical text types of business in the foreign culture and language. Practice sessions focus on reading and understanding specialized texts, on translation, and on composition of selected foreign language special texts. Prerequisite: RUSS 32240.

42351 Survey of Russian 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: Six hours of upper-division Russian.

42399 Research Project in Russian Language and Literature (3)

Thesis or other independent study. "IP" grade permissible. Prerequisite: Six hours of Russian at 40000-level and permission.

SECONDARY EDUCATION (SEED)**32142 Principles of Teaching (3)**

Orientation to adolescence and the teaching-learning process. "IP" grade permissible. This course includes 60 field/clinical hours. Prerequisites: Pre-professional block; C&I 20000; ITEC 27400, and advanced standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

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: SEED 32142 or junior standing in Art Education (K-12).

32147 Issues in English Education (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. This course includes 28 field/clinical hours. Prerequisites: SEED 32142 and advanced standing or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

32260 Orientation to Foreign Language Teaching (3)

Discover oneself as a potential teacher of foreign language; observe a variety of approaches and methods; begin to learn how to develop strategies to implement these methods. This course includes 45 field/clinical hours. Prerequisite: Admission to professional education, oral competency in modern language to be taught; written permission; SEED 32142.

32268 The Secondary School Mathematics Curriculum (3)

The secondary school mathematics curriculum will be examined. Students, textbooks, and recommendations for change will be investigated. This course includes 30 field/clinical hours. Prerequisites: Admission to professional education; SEED 32142.

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 SEED 32142 or permission.

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: SEED 32142 and advanced standing.

32277 Teaching Science in Secondary Schools (3)

Goals, methodology, and resources for effective teaching of secondary school science. This course includes 43 field/clinical hours. Prerequisites: SEED 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. Prerequisite: Permission.

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: Permission.

42260 Practicum in Foreign Language Teaching Methods (3)

Introduction to modern techniques and methods of foreign language instruction at the elementary and secondary levels. This course includes 45 field/clinical hours. Prerequisite: SEED 32260.

42268 Teaching of Mathematics in Secondary Schools (3)

Methodology and materials for effective teaching of secondary school mathematics. This course includes 46 field/clinical hours. Prerequisites: MATH 22005 and SEED 32268.

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 43101, SEED 32142.

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.

42277 Topics in Secondary School Science Teaching (3)

Analysis of trends in science teaching, strategies, and materials for individualizing and varying science instruction and methods of course and program evaluation. This course includes 46 field/clinical hours. Prerequisite: SEED 32277.

42278 Teaching Language, Composition, and Literature in High School (3)

Principles and methods for teaching of language, grammar, literature, and composition in high school. This course includes 55 field/clinical hours. Prerequisite: SEED 32147 or permission.

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: Permission, junior or senior standing.

42357 Secondary Student Teaching and Seminar (10-16)

Provides a ten- or sixteen-week student teaching experience and associated seminar. See "Student Teaching" section of this *Catalog*. "IP" grade permissible. Prerequisite: Eligibility for admission to student teaching.

47248 Teaching Critical Thinking (2)

Techniques, procedures, and materials for developing skills in application of analysis and thinking process. Prerequisites: SEED 32142 and senior standing.

SOCIAL WORK (SWK)

As of Fall Semester 1985, no additional students will be admitted to the Social Work major.

24140 Introduction to Social Work (3)

Historical development of social welfare, social work processes and programs, and emergence of social work as a profession. Prerequisite: SOC 12050. Corequisite: SWK 24141.

24141 Social Work Observation (1)

Analysis of social work as a profession via agency visits. Corequisite of SWK 24140.

24248 Social Welfare Policy (3)

Social welfare policies, programs, services, and social work practice will be explored during critical stages in our nation's growth and development. Prerequisite: SWK 24140.

44111 Social Perspectives on Aging (3)

Survey of the special needs of older adults, this course begins to prepare students for the role of practitioner. Prerequisite: Permission.

44211 Administration of Gerontological Services (3)

Generic methods and skills will emphasize how to lead, organize, develop, and maintain services as an organized system in a social agency for older adults. Prerequisite: Permission.

SOCIOLOGY (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.

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.

22400 Individual and Society (3)

Foundations of human interaction, process of socialization, differentiation of individuals; nature of collective behavior. Prerequisite: SOC 12050. This course may be used to satisfy the Liberal Education Requirements.

22570 Inequality in Societies (3)

Differentiation and ranking within societies with special emphasis on American society. Theories of social stratification and power are covered. Prerequisite: SOC 12050. This course may be used to satisfy the Liberal Education Requirements.

22795 Selected Topics—Social Problems (3)

Contemporary American and world social problems and issues are analyzed from sociological perspectives. Specific social concerns are described and the roles they play in society. Prerequisite: None.

32096 Individual Investigation in Sociology (1-3)

Readings and/or research supervised by member of sociology faculty. Prerequisites: SOC 12050, junior standing, and permission 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 or permission.

32220 Data Analysis (3)

The use of quantitative methods in the analysis of data from social research. Emphasis on descriptive statistics. Prerequisites: SOC 12050 and junior standing or permission.

32221 Data Analysis Laboratory (1)

Analysis of sociological data utilizing statistical and electronic data processing tools. Corequisite: SOC 32220.

32310 Public Opinion and Mass Communication (3)

Examines the interplay among social changes, medium form, medium messages, and media institutions primarily in the context of the United States experience. Prerequisites: SOC 12050 and junior standing or permission.

32315 Sociology of Humor (3)

The saliency and significance of humor in human affairs, theories and research, impacts of social variables, institutions, and mass media, analyses of professional- amateur humorists. Prerequisites: SOC 12050, junior standing, or permission.

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 or permission.

32560 Family and Other Intimate Life Styles (3)

Historical perspective for understanding American family systems; domestic relations law, dating, courtship, marriage processes, factors associated with success in marriage; alternatives to traditional systems. Prerequisites: SOC 12050 and junior standing or permission.

32565 Sociology of Gays/Lesbians (3)

The course examines gender, race, age, class, and cultural differences in the experiences of gays and lesbians, using both social movements and life-span perspectives. Prerequisite: SOC 12050.

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 or permission.

32576 Sociological Analysis of Education (3)

Examination of education as social institution. Social factors influencing learning, teaching, and school programs. Social trends and problems in education. Prerequisites: SOC 12050 and junior standing or permission.

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 or permission.

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 or permission.

32762 Deviant Behavior (3)

Collective aspects of personal disorganization, societal reactions to systematic collective aspects of pathological behavior-sociology of deviant behavior. Prerequisite: SOC 12050.

42010 Death and Dying (3)

Theoretical perspectives and research on human death and dying. Emphasizes applied concerns in medical and helping professions. Topics include social death, death environments, ethics, and suicide. Prerequisites: SOC 12050 and junior standing.

42091 Special Topics in Sociology (3)

(repeatable for a total of 12 hours for majors) Offered irregularly when unusual resources and/or opportunities permit. Topic announced when scheduled. Prerequisites: SOC 12050 and junior standing or permission.

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, Sociology major or minor, 2.50 grade point average, and permission.

42093 Variable Title Workshop in Sociology (1-6)

Concentrates on professional or disciplinary concerns. Specific content to vary according to needs of client groups. Prerequisite: Permission.

42104 Early Sociological Thought (3)

An examination of the contribution made by pre-1930 social thinkers to the development of social theories. Major thinkers will be emphasized. Prerequisites: SOC 12050 and junior standing or permission.

42126 Sociological Theories (3)

Examination of major contemporary approaches and theories of sociologists. Prerequisites: SOC 12050 and junior standing or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

42224 Interpreting Social Data (3)

Emphasis on organizing and interpreting actual sociological research data making use of basic descriptive and inferential statistics and equipment such as keypunches, sorters, and terminals. Prerequisites: SOC 32210 or 32220 and permission.

42292 Field Research in Sociology (3-12)

Under the guidance of a faculty member a student enrolled in this course will participate in sociological research as an individual or member of a team. Prerequisites: SOC 12050, 22100, 32210, 32220, plus 6 additional hours and permission.

42315 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 or permission.

42320 Collective Behavior (3)

Explanation of social system components of rumor, disaster, and crowd behavior. Prerequisites: SOC 12050 and junior standing or permission.

42359 Social Movements (3)

Examination of various types and natures of social movements. Will treat with origins, developmental characteristics, and purposes of classic and contemporary movements. Prerequisite: SOC 12050 or permission.

42360 Social Change Strategies (3)

A sociological analysis of intentional social change strategies used to intervene in contemporary problems of organizations and community life. Prerequisite: SOC 12050 or permission.

42421 Childhood in Society (3)

Societal definitions of childhood, socialization of children; child-centered, child-oriented, and child dominated systems; relationships with other siblings and social categories. Prerequisites: SOC 12050 and junior standing or permission.

42478 Adolescence in Society (3)

Adolescence as biological, and psycho-social entity; adolescence as threshold to adulthood. Prerequisites: SOC 12050 and junior standing or permission.

42561 Religion: Sacred and Secular Perspectives (3)

Social context of religious ideologies and structures with special reference to religion in America. Prerequisites: SOC 12050 and junior standing or permission.

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 or permission.

42564 Bureaucratic Organizations (3)

Analysis of structure and functioning of complex organizations in their cultural context. Prerequisites: SOC 12050 and junior standing or permission.

42567 Race Relations (3)

(cross-listed with HIST 42567) Sociological principles underlying race and ethnic relations; emphasis upon Black-White relations in the United States. Prerequisites: SOC 12050 and junior standing or permission.

42570 Ethnic Groups in America (3)

Overview of theories and strategies of ethnicity and of adjustment, integration, and contributions of American ethnic groups. Prerequisites: SOC 12050 and junior standing or permission.

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 or permission.

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. Prerequisite: SOC 12050 and junior standing or permission.

42580 Human Service Program Evaluation (3)

Examines the sociological evaluation of human service programs in education, social work, corrections, health, mental health, and community action. Prerequisite: SOC 12050 or permission of instructor.

42665 Sociology of Architecture and Planning (3)

Examines the relationship between built environments and behavior with focus on the impact of environments. Designed for both students of design professions and behavioral sciences. Prerequisites: SOC 12050 and junior standing or permission.

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. Prerequisite: Major or minor in gerontology program or permission.

42879 Aging in Society (3)

Analysis of demographic, sociological, and socio-psychological dimensions of aging. Prerequisites: SOC 12050 and junior standing or permission.

SPANISH (SPAN)

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

18201 Elementary Spanish I (4)

An introduction to the Spanish language in the context of Hispanic cultures. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

18202 Elementary Spanish II (4)

A continuation of the introduction to the Spanish language in the context of Hispanic cultures. Prerequisite: SPAN 18201 or equivalent. This course may be used to satisfy the Liberal Education Requirements.

28201 Intermediate Spanish I (3)

Continued development of speaking, listening, reading, and writing skills using a variety of cultural materials. Prerequisite: SPAN 18202 or equivalent.

28202 Intermediate Spanish II (3)

Continuation of SPAN 28201; credit may be given for SPAN 28202 or for SPAN 28206, but not for both. Prerequisite: SPAN 28201 or equivalent.

28206 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 28202 or 28206, but not both. Prerequisite: SPAN 28201.

28207 Business Spanish I (3)

Terminology, organization, 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 28202 and appropriate score on MLA Level II exam.

28208 Business Spanish II (3)

Terminology, organizations, and modes of communication prevalent in modern Spanish business world. Presentation of materials is followed by practical exercises organized in situational units. Prerequisite: SPAN 28207.

28209 Field Study (1-6)

(repeatable for a total of 6 hours) For 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: One year of college language or equivalent.

28212 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 28202.

38143 The African-Brazilian Experience in Culture and Literature (3)

(cross-listed with HIST 31143, PAS 37143, and PORT 37143.) Interdisciplinary approach to the study of the African-Brazilian experience, from the colonial period to the present, as reflected in selected literary, sociocultural, and historical texts. Course taught in English. Prerequisite: Junior standing or permission.

38211 Spanish Composition and Conversation I (3)

This course helps advanced intermediate students expand their vocabulary, use idiomatic expressions correctly, and eliminate errors in the spoken and written use of the language. Prerequisite: SPAN 28202 or permission.

38213 Spanish Composition and Conversation II (3)

This course provides further spoken and written practice to help advanced language students express complex ideas in the foreign language. Prerequisite: SPAN 38211 or permission.

38215 Spanish Phonetics and Diction (3)

Study of the modern Spanish sound system with special emphasis on pronunciation and intonation. Prerequisite: SPAN 38211 or permission.

38231 Translation Practice: Spanish (1)

Translation practice with Spanish texts using principles and techniques learned in the lecture class. To be taken concurrently with MCLS 30230. 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.

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 course graduation 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 course graduation 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 course graduation requirement with approval of major department.

38335 Recent Spanish-American Literature (3)

Outline of the development of modern Spanish-American literature (1882 to the present). Reading of representative works. Prerequisite: SPAN 38211. This course may be used to satisfy the writing-intensive course graduation 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 or permission.

38424 Culture and Civilization of Latin America (3)

A thematic approach to the study of four or five representative Latin American countries focusing on nineteenth-and twentieth-century Latin American culture and society. Prerequisite: SPAN 38211 or permission.

48093 Variable Title Workshop in Spanish (1-6)

Workshops individually designed to provide instruction and training in specific areas of Hispanic studies. Prerequisite: Departmental permission.

48095 Selected Topics in Spanish (3)

(repeatable for a total of 9 hours) Topic announced in *Schedule of Classes*.

Prerequisite: Nine hours above 20000-level or permission.

48096 Individual Investigation (1-3)

(repeatable for a total of 6 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: Six hours of upper-division Spanish literature; permission.

48215 Spanish Composition-Advanced (3)

Literary, political, and commercial texts examined for style and structure; class assignments to aid the students' writing style; presentation of grammatical and idiomatic expressions. Prerequisite: SPAN 38213.

48216 Contemporary Hispanic Culture (3)

A study of selected sociological, political, cultural, or economic issues in the contemporary Hispanic world. Prerequisite: Six hours from 30000-level Spanish courses.

48230 Advanced Translation Practice: Spanish (3)

Practice course that emphasizes skill-building in foreign language-to-English translation of a selection of texts in business, technology, medicine, and law. Prerequisite: SPAN 38231.

48240 Business and Special Texts: Spanish (3)

Survey of the typical text types of business in the foreign culture and language. Practice sessions focus on reading and understanding specialized texts, on translation, and on composition of selected foreign language special texts. Prerequisite: SPAN 38240.

48340 Medieval Spanish Poetry (3)

Spanish literature from the beginning to the Renaissance period. Prerequisite: SPAN 38421 or 38331 or permission.

48350 Don Quixote (3)

A penetrating study of Cervantes' masterpiece. Prerequisites: SPAN 38421 and 38332 or permission.

48351 *Minor Works of Cervantes (3)*

Novelas Eemplares and Entremeses, and Numancia. Prerequisites: SPAN 38332 and 38421 or permission.

48352 *Medieval Spanish Prose (3)*

The development of medieval Spanish prose, with special emphasis on La Celestina. Prerequisites: SPAN 38421 and 38332 or permission.

48354 *Neoclassicism and Romanticism (3)*

Survey of neoclassicism and romanticism in Spain. Prerequisite: Nine hours of Spanish courses above the SPAN 38211 level or permission.

48356 *Golden Age Prose (3)*

Study of the development of the various forms of prose fiction during the Spanish Golden Age. Prerequisites: SPAN 38421 and 38332 or permission.

48358 *Nineteenth-Century Novel (3)*

Analysis and critical interpretation of outstanding representatives of nineteenth-century novel. Prerequisites: SPAN 38421 and 38331 or permission.

48360 *Twentieth-Century Spanish Drama (3)*

Representative works of leading Spanish dramatists of the twentieth century. Prerequisites: SPAN 38421 and 38331 or permission.

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 or permission.

48366 *The Novel of the Mexican Revolution (3)*

Study of twentieth-century novels concerned with the causes, outbreak, and aftermath of the Mexican Revolution. Prerequisites: SPAN 38333 or 38334 and 38423 or permission.

48370 *Modernismo in Spanish-America (3)*

Ruben Dario and other writers of the modernista movement. Prerequisites: SPAN 38333, or 38334, or permission.

48372 *Spanish-American Novel I (3)*

Literary study of selected major Spanish American novels written between 1900 and 1950. Prerequisite: Nine hours of Spanish courses above SPAN 38211 level or permission.

48373 *Spanish American Novel II (3)*

Literary study of selected major Spanish American novels written between 1951 and the present. Prerequisite: Nine hours of Spanish courses above SPAN 38211 level or permission.

48374 *Modern-Spanish American Drama (3)*

Analysis of selected plays from various Spanish-American countries. Prerequisites: SPAN 38333 or permission.

48376 *Contemporary Spanish-American Short Story (3)*

The development of the Spanish-American short story from 1917 to the present. Prerequisites: SPAN 38333 or permission.

SPECIAL EDUCATION (SPED)**23000 *Introduction to Exceptionalities (3)***

Introduction to student exceptionalities, service delivery, and multidisciplinary team process. Focus on identification of characteristics of students with exceptionalities. 15 clinical/field hours. Prerequisite: None.

23200 *Special Education (3)*

Introduction to exceptionalities, mainstreaming, and the multidisciplinary team process. Focus upon the interrelationship between general and special education in the design and implementation of services for exceptional students. Includes 15 field/clinical hours. Prerequisite: None.

40093 *Workshop in SPED (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. "IP" grade permissible. Prerequisite: None.

43010 *Family and Professional Collaboration (3)*

Provides knowledge/strategies for working with family members of exceptional individuals and members of related professions providing services to them. Use of collaborative, interdisciplinary, interagency models in special education. Prerequisite: SPED 23000.

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. 75 clinical/field hours. Prerequisite: SPED 23000.

43030 *Classroom and Behavioral Management I: Theory and Techniques (3)*

Theory and techniques associated with establishing, implementing, assessing, maintaining techniques modifying classrooms to enhance learning and behavior of children/youth with disabilities. 25 clinical/field hours. Prerequisite: SPED 23000.

43031 *Classroom and Behavioral Management II (3)*

Application of theory and techniques introduced in SPED 43030. Uses case-based instruction to address points of intervention, adaptation, and conflict. Introduces methods of teaching social skill. 40 clinical/field hours. Prerequisite: SPED 43030.

43040 Language and Reading in Special Education (3)

Instructional approaches to teaching reading/language arts to students with disabilities. Emphasis on adapting instructional techniques, materials, assessment to meet the needs of learners with disabilities. 15 clinical/field hours. Prerequisite: SPED 43050 or 43051; Two reading methods classes.

43050 Characteristics Students with Mild/Moderate Intervention Needs (3)

Characteristics of students with identified mild/moderate intervention needs: learning disabilities, emotional/behavior disorders, mild developmental disabilities. Focus on identification, cause, assessment, and facets of behavior. Prerequisite: None.

43051 Characteristics Students Moderate/Intensive Intervention Needs (3)

Introduction to students with severe physical, motor, sensory, cognitive disabilities. Course presents overview of nature and needs of educating these students and service options available across the life span. Prerequisite: None.

43060 Curriculum/Methods Classroom Instruction: Mild/Moderate Intervention (3)

Curriculum development, programming, delivery for students with mild to moderate disabilities. Emphasis on functional curriculum and adapting instructional techniques, materials, assessment to meet needs. 33 field/clinical hours. Prerequisite: SPED 43050.

43061 Curriculum/Methods Classroom Instruction: Moderate/Intensive Intervention (3)

Curriculum programming, instructional strategies, evaluation techniques for functional, academic skills. Emphasis on community-based instruction using life-span model. 33 clinical/field hours. Prerequisite: SPED 43051.

43070 Planning and Programming for Transitions (3)

Life-span community participation in transition and the planning, support development, and services available to accomplish this. Prerequisite: SPED 43050 or 43051.

43080 Assistive Technology for Students with Disabilities (3)

Examines application of high and low technology assistive devices for students with intensive intervention needs. Analysis of technology needs; selection/development of technology; training/evaluation of tech use by students. Prerequisite: SPED 43050 and 43051.

43201 Affective—Social Programming for Children and Youth with Disabilities (3)

This course provides knowledge and skills which utilize the specialized techniques and materials for personal and pre-social development that can be employed within appropriate settings. Includes 20 field/clinical hours. Prerequisites: SPED 23200, 43951, and 43959 or 43960.

43202 Nature and Needs of Children and Youth with Behavior Disorders (2)

Examines etiologies, service delivery systems, and diagnosis/assessment of children and youth who are experiencing varying degrees of problem behavior. Prerequisite: SPED 23200.

43206, 43207 Student Teaching: Behavior Disorders (4 Each)

"IP" grade permissible. Prerequisite: Special methods in major area and eligibility for student teaching.

43292 Field Experience: Behavior Disorders (2-4)

Development and implementation of management skills with children experiencing behavior disorders through socio-recreational experience. Prerequisites: SPED 43961 and 43201.

43309 Nature and Needs of the Hearing Impaired (2)

Overview of deaf education, past, present, and future trends. Examination of the social, psychological, academic, and vocational realities of severe/profound hearing loss. Focus upon educational and service delivery models. Prerequisite: None.

43310 Language Instruction for the Deaf (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, Minimum grade B.

43311 Instructional Planning/Programming for D/HH Students (3)

IEP and transition planning strategies and program content for D/HH students w/ADHD, BD, DD, VI, DB, LD, CMI, TBI, chronically health impaired/medically fragile, gifted. Curriculum and lesson development and adaptation for impacted areas. Prerequisite: Adm Prof Educ; SPED 43313, minimum grade B.

43313 Literacy Assessment and Intervention for D/HH Students (3)

Theoretical overview integrated linguistics curriculum, reading theories: integrated approaches and characteristics of successful deaf readers. Instruct. planning, materials design/adaptation, assessment strategies. 50 field/clin. hr. Prerequisite: Adm Prof Ed; Minimum grade B, SPED 43310 and 43321.

43316 Preschool Education of the Hearing Impaired (3)

Developing home/clinic training programs for parents and hearing impaired infants (0-3 yrs). Teaching speech, language, speech reading, use of residual hearing at preschool level. Prerequisite: Senior standing.

43317, 43318 Student Teaching: Hearing Impaired (4 Each)

"IP" grade permissible. Prerequisites: Special methods in major area and eligibility for student teaching. Taken concurrently with SPED 43391.

43319 Instructional Approaches and Placements for D/HH Students (3)

Theory, practice, communication approaches include student/family/staff competencies required for use of oral/aural, Total communication, and Bi-bi educational programs. Prerequisite: Adm Prof Educ; SPED 43313, minimum grade B.

43320 American Sign Language and Deafness Studies I (3)

Develop beginning visual-receptive skills in ASL and introductory expressive conversational skills. Examines nonverbal communication systems and basic linguistic characteristics of PSE, MCE and ASL. Introduction Deaf cultural values. Prerequisite: None.

43321 American Sign Language and Deafness Studies II (3)

Continued development of receptive and expressive skills in ASL to allow communication at an advance-beginning level in conversational format, approximating conversational speed, with a very familiar deaf individual. Prerequisite: SPED 43320, minimum grade B.

43322 American Sign Language and Deafness Studies III

Development of ASL fluency in expressive and receptive modes to intermediate levels to develop conversational speed conversation with familiar deaf individuals. ASL phonology/morphology; awareness of deaf cultural values/customs. Prerequisite: SPED 43321, minimum grade B.

43323 American Sign Language and Deafness Studies IV (3)

Development of ASL fluency in expressive and receptive modes to beginning-advanced levels for conversational speed communication with deaf individuals (familiar/strangers). ASL morphology, syntax, semantics. Prerequisite: SPED 43322, minimum grade of B.

43324 Curriculum Methods and Materials for D/HH 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 students. Prerequisite: Adm Prof Educ; SPED 43313, minimum grade B.

43391 Student Teaching Seminar: Hearing Impaired (1)

Application of theories and methods of teaching the hearing impaired to situations and problems encountered in student teaching. Prerequisites: Taken concurrently with SPED 43317, 43318.

43392 Practicum: Deaf Education (1-7)

This practicum course occurs in conjunction with ASL classes and all deaf education method classes. See adviser for sequence. Total 175 clock hours. "S/U" grade and "IP". Prerequisite: Adm Prof Educ; taken concurrently with methods courses.

43400 Introduction to Development Disability and Community Services (3)

Introduction to the history, causation, and service delivery in the education/habilitation of developmentally disabled youth and adults (mental retardation focus). Prerequisites: PSYC 11762; junior/senior standing.

43420 Methods and Practices: Developmentally Handicapped (3)

Provides for the synthesis and application of assessment, instruction, classroom management and curricular practices for the developmentally handicapped in a special education classroom. Prerequisite: SPED 43421.

43426, 43427 Student Teaching: Developmentally Handicapped (4 Each)

"IP" grade permissible. Prerequisite: Special methods in major area and eligibility for student teaching.

43492 Field Experience: Developmentally Handicapped (2-4)

Therapeutic recreational and academic experience with educable mentally retarded children in a camp, school, or residential facility. Prerequisite: SPED Core.

43529 Nature and Needs of Gifted Children (3)

Personal characteristics, abilities, and potentialities of gifted through review of related research. Evaluation of research findings and implications for psycho-educational development. Prerequisites: PSYC 11762 and sophomore standing.

43530 Instructional Processes for Gifted Children (3)

Discovery and guidance of mentally superior children. Provision for school attention and accommodations. Case studies of gifted children. Selecting appropriate instructional strategies. Prerequisite: SPED 43529.

43531 Student Teaching: Gifted (8)

"IP" grade permissible. Prerequisites: SPED 43530 and ELED 41137 and eligibility for student teaching.

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.

43592 Field Experience: Gifted (2-4)

Recreational, therapeutic, and academic experience with gifted children in camp, school, or residential facility. "IP" grade permissible. Prerequisite: SPED Core.

43741, 43742 Student Teaching: Multiple Handicapped (4 Each)

"IP" grade permissible. Prerequisite: Special methods in major area and eligibility for student teaching.

43792 Field Experience: Multiple Handicapped (2-4)

Recreational, therapeutic and academic experience with multiply disabled children in camp, school, or residential facility. "IP" grade permissible. Includes 50-75 field/clinical hours. Prerequisite: Permission.

43846, 43847 Student Teaching: Orthopedic and Cerebral Palsy (4 Each)
"IP" grade permissible. Prerequisite: Special methods in major area and eligibility for student teaching.

43892 Field Experience: Orthopedic and Cerebral Palsy (2-4)
Recreational, therapeutic, and academic experience with orthopedic and cerebral palsy children in camp, school, or residential facility. "IP" grade permissible. Includes 50-75 field/clinical hours. Prerequisite: SPED Core.

43951 Family and Interdisciplinary Collaboration (3)
Provides knowledge/strategies for working with family members of exceptional individuals and members of related professions which provide services to them; use of interdisciplinary approaches in special education. Includes 30 field/clinical hours. Prerequisites: SPED 23200 and 43959 or 43960.

43952 Introduction to Career/Vocational Development of Exceptional Individuals (3)
Employment opportunities, work experience, legal aspects, community agencies, importance of academic areas to occupational adjustment as related to mentally and physically disabled. Includes 30 field/clinical hours. Prerequisites: SPED 23200.

43957 Sensory Impairments in Handicapped Children (3)
Examination of the influence of hearing impairment, visual impairment, and vision plus hearing impairment as secondary handicapping conditions in students with multiple or orthopedic handicapping conditions. Includes 22 field/clinical hours. Prerequisite: SPED Core.

43959 Assessment of Low Incidence Handicapped Individuals (3)
Provides training in review, selection, administration, scoring, and interpretation of standardized tests, scales, check lists, and observation techniques for individuals with low incidence handicapping conditions. Includes 28 field/clinical hours. Prerequisite: SPED 23200.

43960 Assessment of Exceptional Individuals (3)
Use and interpretation of norm-referenced measures and the development and use of criterion-referenced measures with exceptional individuals. Emphasis on special uses. Includes 75 field/clinical hours. Prerequisite: SPED 23200. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

43961 Behavior Management in SPED (3)
Examination of alternate interventions, strategies based on varying conceptual models; stressing psychodynamic/ psychoeducational and behavioral techniques used to manage the behavior of exceptional individuals. Prerequisites: SPED 43950 and 43960.

43962 Curriculum and Methods in SPED (3)
Overview of curricula employed in special classes. Includes content and activity analysis, administrative teacher tasks, planning and implementing instructional methods, classroom models for special education. Includes 60 field/clinical hours. Prerequisite: SPED 23200.

43963 Language/Reading in SPED(3)
Instructional approaches for reading/language arts for exceptional students. Emphasis is on special materials and techniques as well as adapting existing material for special needs. Includes 15 field/clinical hours. Prerequisites: SPED 23200, 43951, and 43959 or 43960. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

43981 Student Teaching in Special Education (4-9)
"S/U" grade and "IP" permissible. See Adviser. Prerequisite: Permission; co-requisite SPED 49525; Admission to Professional Education.

43982 Seminar in Student Teaching (2)
Seminar to provide on going support and problem solving to students currently in student teaching placements. Concurrent with SPED 43981. Prerequisite: Special Methods/Major area; Admit to Professional Education.

43991 Seminar in Special Education (1-3)
Undergraduate seminar in Special Education; varied topics. Prerequisite: Admission to Professional Education.

43992 Field Experience in Special Education (2-4)
Recreational, therapeutic, and academic experience with exceptional children in camp, school, or residential facility. "S/U" grading. "IP" grade permissible. Prerequisite: Admission to Professional Education.

43996 Individual Investigation in Special Education (2-3)
"IP" grade permissible. Prerequisite: Permission.

44054 Student Teaching Seminar: Speech and Hearing Therapy (2)
Situations and problems peculiar to speech and hearing therapy in public schools. Relate current theories and techniques to this setting. Prerequisite: Taken concurrently with SPED 44055 and 44056.

44055, 44056 Student Teaching: Speech And Hearing Therapy (2 or 4 each)
"IP" grade permissible. Prerequisite: Special methods in the major area and eligibility for student teaching.

44155 Interdisciplinary Programming (3)
Emphasizes the knowledge and skills in using interdisciplinary approaches to the education of severely and multiply handicapped children. Prerequisite: SPED Core.

44156 Applied Behavior Analysis for Students with Handicaps (3)

Development of knowledge and skills to establish and implement behavioral strategies for modifying inappropriate behavior of students with disabilities. Includes 25 field/clinical hours. Prerequisite: SPED Core.

44158, 44159 Student Teaching: Multiple Handicapped (4 Each)

"IP" grade permissible. Prerequisite: Special methods in major area and eligibility for student teaching.

44160 Curriculum Content for Low Incidence Handicaps (3)

Emphasis on survival and functional curricular domains, diagnostic prescriptive techniques including observation skills, record keeping, task analysis, IEPs. Includes socialization, motor, language, survival academics. This course includes 33 field/clinical hours. Prerequisite: SPED Core.

44161 Transitional Programming and Services for Disabled Youth (3)

Transition from school to work and community life; vocational exploration/assessment and preparation/placement methods and techniques for secondary and postsecondary disabled youth. Prerequisite: Permission.

44191 Seminar: Multiple Handicapped (2)

Various topics include advanced behavioral techniques, orthopedically involved students, advanced curricular modifications for M.H., programming for the least restrictive environment, etc. Prerequisites: SPED 44155, 44160, and 44161.

44260, 44261 Student Teaching: Visually Handicapped (4 Each)

"IP" grade permissible. Prerequisite: Special methods in major area and eligibility for student teaching.

44292 Field Experience: Visually Handicapped (2-4)

Recreational, therapeutic, and academic experiences with visually handicapped children in camp, school, or residential facility. "IP" grade permissible. Prerequisite: SPED Core.

44410 Adapted Functional Academics in Special Education (3)

Emphasis on functional academics (mathematics and social science) content and methods of instruction for exceptional students. Prerequisites: SPED 23200, 43951, and 43959 or 43960.

44425 Seminar: Student Teaching in Behavior Disorders (2)

Seminar to accompany student teaching in behavior disorders. Prerequisite: Permission.

49525 Inquiry Seminar into Professional Practice (3)

Interdisciplinary inquiry into teaching as professional practice in education; emphasis on teacher as disciplined investigator. Final semester of four. Utilization of teaching/learning technology. Prerequisite: EDPF 39595; co-requisite SPED 43981.

49956 Applied Behavior Analysis II: Applications with Low Incidence Populations (3)

Development of knowledge and skills to establish and implement behavioral strategies for modifying inappropriate behavior of students with multiple disabilities. This course includes 38 field/clinical hours. Prerequisite: SPED 44156.

Note: Field experience includes seminars, participation, and evaluation under supervision of experienced personnel.

SPEECH AND AUDIOLOGY (SP&A)**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.

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, and bioacoustics, anatomy, and physiology of the ear. Prerequisite: None.

34100 Speech-Language Pathology I (3)

Speech pathology, etiologies, and manifestations of disorders of the speech process and language process. Supervised observations of various types of speech, language, and hearing disorders. 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.

34105 Physical Bases of Speech (3)

Survey of fundamental anatomical, physiological, and acoustic characteristics of speech. Importance of these characteristics to perception of speech will be emphasized. Prerequisite: Not open to majors in speech-language pathology and audiology.

34106 Development and Disorders in Articulation and Phonology (3)

Normal development of the speech sound system, emphasizing articulation and phonology. Introduction of assessment and intervention strategies employed for speech sound disorders. Prerequisites: "B" average in SP&A 34100, 34102, 34103, and major in Speech Pathology and Audiology.

34107 Language Disorders in Children and Adolescents (3)

Introduction to assessment and intervention procedures associated with language disorders in children and adolescents. Prerequisites: SP&A 44108 and major in Speech Pathology and Audiology (junior standing).

40104 Speech and Language Rehabilitation (2)

Orientation to types of speech, hearing, and language disorders found in schools and how the classroom teacher should handle them. Prerequisite: Not open to majors in speech-language pathology and audiology.

43300 Speech of the Hearing Impaired (3)

Basic principles, variables, and techniques for understanding, evaluating, and improving expressive communication of hearing impaired individuals. Prerequisites: SP&A 33101, 34102 (Speech Pathology majors), 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: SP&A 33101 (grade of "C" or better or equivalent).

43404 Aural Rehabilitation (3)

Basic principles, variables, and techniques for understanding, evaluating, and improving receptive communication of hearing-impaired individuals. Prerequisites: SP&A 33101, 34102, 43402 (Speech Pathology and Audiology majors), 43600 (education of hearing impaired majors).

43492 Clinical Preparation in Audiology (3)

Fundamental evaluation and management procedures of hearing-impaired persons, including a minimum of 15 hours of supervised observation. Prerequisite: SP&A 43402 and 43404. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

43506 Special Issues in Audiology (3)

Readings and discussion of classic and current research on the evaluation of hearing disorders. Prerequisite: SP&A 43402.

43600 Fundamentals of Audiology (4)

Overview of parameters of sound, anatomy and physiology of hearing mechanism, clinical audiometry, and aural rehabilitation. Consideration of different types of hearing losses and their effects on communication. Prerequisite: Junior standing.

44096 Independent Study: Speech Pathology and Audiology (2-6)

Readings and/or research on problems approved by chairman of department in consultation with student's adviser and project director. "IP" grade permissible. Prerequisite: Senior speech major.

44108 Language Acquisition and Behavior (3)

Normal development and linguistic analysis of language systems including phonology, syntax, semantics, and pragmatics. Prerequisite: Major in Speech Pathology and Audiology (sophomore standing).

44110 Speech Science (3)

Consideration of physiological and acoustic characteristics of normal speech production and perception with implications for speech and hearing disorders. Prerequisites: SP&A 34102, 34106 or equivalent.

44111 Neural Processes in Speech and Language (3)

Anatomy and physiology of the nervous system underlying speech and language. 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: SP&A 34103 or permission 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 mechanism; 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 or permission. Majors: elective credit only.

44310 Clinical Procedures (3)

Examination of evaluative and therapeutic procedures used with communicatively-impaired children and adults. Prerequisite: SP&A 34103, or 34106, or senior standing.

44322 Public School Techniques in Communication Disorders: Inquiry into Professional Practice (3)

Inquiry into speech pathology and audiology as practiced in the school setting; emphasis on speech-language pathologist or audiologist as disciplined investigator. Combination of themes including organizational procedures, therapy techniques, collaboration, ethics, and research. Prerequisites: Speech Pathology Majors: SP&A 64302, 64303, 64305, 64306, 64308; Audiology majors: SP&A 63104, 63105, 63301, 63502, or equivalents.

44492 Clinical Preparation in Speech-Language Pathology (3)

Fundamental evaluation and management procedures of individuals with communication disorders, including a minimum of 15 hours of supervised observation. Prerequisite: SP&A 34106, 44108, 44310. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

TECHNOLOGY (TECH)*Technology**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.

11051 Survey of Technology Education (2)

Orientation course for technology education majors and minors. Study of technology education teaching profession. Prerequisite: None.

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.

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.

13022 Radio Code (1)

Beginner's course in Morse Code, including receiving, copying, sending, FCC license requirements, message centers, traffic control.

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.

15000 Aerospace Technology (3)

Introduction to aerospace technology including historical development, science, and technical applications. Social-economic impact and future prospects. Prerequisite: None.

15641 Private Pilot Flight (3)

Flight course designed to fulfill FAA requirements for private pilot license. Prerequisites: 2.25 GPA; corequisite: TECH 15740. "IP" grade permissible. Special Fee: \$706.00/cr. hr. — subject to change.

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 or permission.

15741 Private Pilot Flight (3)

Flight course consisting of instruction and solo practice designed to fulfill FAA requirements for a private pilot certificate. "IP" grade permissible. Corequisite: TECH 15740 or permission. Special Fee: \$4442.00—subject to change.

15742 Private Pilot Flight II (2)

Flight course designed to provide instruction and solo practice in basic navigation and preparation for the private pilot flight test. Prerequisites: TECH 15740 and 15741. Special Fee: \$1,184.00/cr.hr. —subject to change.

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: None.

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.

20004 Electrical Circuits I (3)

Introduction to electric circuit analysis. Voltage, current, resistance, power. Analysis of series and parallel networks. Network theorems, mesh, and nodal analysis. Capacitor and inductor circuits. Includes laboratory. Prerequisite: MATH 12001 or equivalent.

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 Co-requisite MATH 11022.

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.

21061 Welding Technology I (2)

Practice and theory of welding and cutting, welding equipment, safety, welding symbols, materials. Prerequisite: TECH 20002 or equivalent.

*22100 Training Topics in Technology (1-4)**

(repeated registration permitted) 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: Permission.

23224 Electrical Circuits II (3)

Intermediate electric circuit analysis. Reactance, impedance, network theorems, and analysis. Resonance in series and parallel circuits. Applications. Includes laboratory. Prerequisite: TECH 20004.

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, 13580.

25250 Elements of Aviation Weather (2)

Aviation weather provides an up-to-date and expanded course for professional pilots and others whose interest in weather is primarily in its application to flying. Prerequisite: TECH 15000 or permission.

25643 Commercial Pilot Flight I (2)

Flight course with emphasis on precision flight maneuvers and cross-country flights. Prerequisites: 2.25 GPA; TECH 15641; corequisite: TECH 25250. "IP" grade permissible. Special Fee: \$2,150.00/cr. hr., Fixed Wing — subject to change.

25645 Commercial Pilot Flight II (2)

Flight course with emphasis on sophisticated and complex aircraft and extended cross-country flights. Prerequisites: 2.25 GPA; TECH 25643; corequisite: TECH 35746. "IP" grade permissible. Special Fee: \$2,350.00/cr.hr., Fixed Wing — subject to change.

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. Prerequisite: TECH 15740, 15741, or permission. Special Fee: \$2,500.00/cr.hr. — subject to change.

31000 Cultural Dynamics of Technology (3)

Study of technology and the forces it exerts upon society. Prerequisite: None. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31001 Methods in Technology Education (3)

Methods of teaching curriculum development and evaluation which are unique to the profession of technology education. Prerequisites: Thirty hours of industrial arts and SEED 32142. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

31015 Construction Technology (3)

Laboratory, lecture, and field experience which relate to the construction industry and its relationship to our society. Prerequisite: None.

31016 Manufacturing Technology (3)

Classroom, laboratory, and field experiences involving the major aspects of a manufacturing enterprise, including product design, production, financing, and marketing. Prerequisite: TECH 20002.

31020 Automated Manufacturing (3)

Theory and operation of computer controlled machine tools, robots, and processes. Prerequisite: None.

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.

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.

31051 Technology Education for Elementary School (3)

Using discussion, laboratory experience, and field experiences, this course explores technology education as it relates to all content areas of the K-12 curriculum. Prerequisite: None.

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 focus on current industrial practices. Includes laboratory experience with nonferrous metals and industrial tours. Prerequisite: None.

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.

31087 Design for Technology Education (3)

Design as creative process. Individual and group experiences in problem solving. Relevance to art, industry, and education. Prerequisite: TECH 11083.

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.

33033 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 12001; PHY 23101 or 13001.

33056 Cooperative Education-Professional Development (1-6)

Supervised work-study experience in approved business or industrial environment relevant to the student's major. "IP" grade permissible. Prerequisites: Sophomore with 2.25 GPA and permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

33220 Analog Electronics (3)

Introduction to non-linear devices. Diodes and applications. Bipolar and field effect transistors. Biasing techniques, applications in amplifier circuits and as electronic switches. Includes laboratory. Prerequisite: TECH 23224.

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 TECH 21021.

33223 Electronic Communication (3)

Electronic circuits and systems with emphasis on their application in communications systems. Prerequisite: TECH 33220 or permission.

33225 Industrial Control Systems (3)

The application of electronics to the control of industrial machines and processes. Includes laboratory. Prerequisite: TECH 33220.

33363 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.

33580 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 33220.

35001 Aircraft Fabrication (3)

The study and laboratory practice of government approved procedures used in the fabrication, repair, and testing of certificated aircraft. Prerequisites: TECH 15000, MATH 12001, and PHY 13001.

35020 Aerospace Propulsion (3)

A study of reciprocating engines and propellers as aircraft propulsion systems. Includes laboratory experiences related to component function and system performance. Prerequisites: Aerospace Technology major, TECH 15000, MATH 12001, and PHY 13001 and 13002; or permission.

35040 Aerospace Systems (3)

Introduction to the many and varied aircraft systems including electrical, mechanical, and hydraulic systems and their performance as applied to aircraft. Lecture and laboratory. Prerequisites: Aerospace Technology major, TECH 15000, MATH 12001, and PHY 13001 and 13002, or permission.

35050 Flight Safety (2)

Defines major causes of aircraft accidents and events leading up to accidents. Describes preventive procedures and provides for actual case studies. Prerequisite: TECH 15000.

35101 Helicopter Theory and Operation (2)

Study of the helicopter that includes rotor system dynamics, control functions, major components, operation, and performance. Prerequisite: TECH 15000.

35111 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 32551.

35150 Aerospace Structures (3)

Structural design investigations dealing with theory and applications in the aerospace industry. Prerequisites: Aerospace Technology major, TECH 15000, MATH 12001, and PHY 13001 and 13002; or permission.

35340 Airport Management (3)

Introduction to the many functions which are involved in the operation and management of an airport. Prerequisite: TECH 15000 or permission.

35341 Air Transportation System (3)

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 or permission.

35342 Air Traffic Control (2)

Descriptive course in air traffic control covering tower and approach/departure controls and center operation, air route systems, and problem areas encountered. Prerequisite: TECH 15000 or permission.

35644 Instrument Flight Theory (3)

Comprehensive instruction presenting theoretical and practical aspects of instrument and weather flying. Prerequisites: TECH 15740 and 25250; corequisite: TECH 35645; or permission.

35645 Instrument Pilot Flight (2)

Comprehensive flight course for the professional pilot candidate to meet the requirements of the FAA instrument rating. Prerequisites: TECH 25250 and 25743 or permission; or corequisite: TECH 35644. Special Fee: \$2,050.00/cr.hr.—subject to change.500

35647 Commercial Pilot Flight II (2)

Comprehensive flight course for the professional pilot candidate with emphasis on commercial flight maneuvers and instrument flight review. "IP" grade permissible. Prerequisites: TECH 35644, 35645, or permission. Special Fee: \$1,500.00/cr. hr., Fixed Wing—subject to change.

35746 Commercial Pilot Theory (2)

Comprehensive instruction covering all areas necessary to exercise the privileges of a commercial pilot. Prerequisite: TECH 35644, 35645; or permission.

35747 Commercial Pilot Flight III (2)

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: \$1,900.00/cr.hr. — subject to change.

*36005 Design of Online, Multiuser Systems (3)**

Design of large-scale, online processing systems. Examines the optimizing of program products, such as CICS, IDMS-DC, etc., that control online data-base/data communication applications. Prerequisite: COMT 21000 or equivalent.

*36008 Ergonomics in Computer Systems (3)**

Laboratory course using a man-machine systems engineering approach to derive ergonomic solutions in software. Students will analyze problems and design solutions for the end-user. Prerequisite: COMT 21003.

*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: Permission.

41000 Technology Education Laboratory Service and Maintenance (2)

Study and application of the knowledge of service and maintenance as applied to the laboratory and equipment found within a comprehensive technology education program. Prerequisite: Junior standing.

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.

41037 Introduction to Driver and Traffic Safety Education (2)

Driving task analysis. Investigation of human, environmental and other conditions which affect teaching of driver education. Theoretical and laboratory applications. Prerequisites: Driver's license; junior standing or permission.

41038 Organization and Instruction Methods in Driver and Traffic Safety Education (2)

Principles and practices of organization and administration of high school and special driver education programs; including evasive and emergency driving and motorcycle safety. Prerequisite: TECH 41037.

41039 Personality and Psychological Factors in Driver and Traffic Safety Education (2)

Prepares teachers to qualify for certification in driver education. Prerequisite: TECH 41037.

41055 Industrial Practice (1-8)

Practical experience in industry of cooperative work-study nature. Prerequisite: Junior standing.

41093 Variable Title Workshop in Technology (1-3)

(repeatable for a total of 6 credits) Specialized instructional unit oriented primarily to the application of current theoretical principles developed by the technological community. "IP" grade permissible. Prerequisite: None.

41096, 41196 Individual Investigation In Technology Education (1-4)

(repeatable for a total of 4 hours) Individual investigation course. "IP" grade permissible. Prerequisites: Student must have completed 50 hours of technology education and have an approved proposal with faculty member prior to registering for this course.

*42100 Training Topics in Technology (1-4)**

(repeated registration permitted) Specialized advanced instruction oriented primarily to the theoretical base and application of current technology developed by experts in the specific technology. This course requires substantial base knowledge and is repeatable as the specific topics will vary. Prerequisite: Permission.

43026 Microprocessor Systems (3)

Introduction to the architecture, operation, and applications of an advanced microprocessor, focusing on assembly language programming and interfacing of standard programmable peripherals. Prerequisite: TECH 33222.

43050 Individual Investigation in Industry (1-2)

Work study of an individual nature on a topic relating to a manufacturing industry or related activity. "IP" grade permissible. Prerequisite: Technology junior standing or permission.

43080 Industrial and Environmental Safety (3)

Examines the Occupational Safety and Health Act and fundamentals of industrial safety programs. Prerequisite: None.

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 specific employment. "IP" grade permissible. Prerequisite: Permission 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 Control Systems and Robotics (3)

Theory and application of open loop and closed loop systems in measurement, manufacturing, simulation, aircraft flight control, and other areas. Prerequisites: TECH 43026; MATH 12003.

43550 Computer-Aided Manufacturing (3)

The application of computers to the preparation of machine tool control programs. Prerequisite: Senior standing or permission.

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, 35111; MATH 12002; PHY 13001, 32551.

43640 Photo-Lithography (2)

Technical study of the theory and practice of photo-lithography as a major printing process including a review of camera work, plate, and press operations. Prerequisites: TECH 21046 and 31047.

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: Senior standing or permission.

43800 Applied Engineering Technology Seminar (2)

An individual or group project involving the solution of a problem through the application of technology. Prerequisite: Technology senior or permission.

45030 Advanced Aerospace Systems (3)

Application of electro-mechanical and hydraulic component systems and accessories as related to flight vehicles. Prerequisites: Aerospace Technology major and TECH 35040; or permission. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

45092 Aerospace Technology Internship (1)

(repeatable for a total of 6 hours) Work experience in aerospace/aviation industry or related activity, laboratory, or student professional organization. Prerequisite: Permission.

45095 Aerospace Industrial Problems (2)

Individual investigation course based on selected aerospace related problems from a cooperating industry or organization. Prerequisite: Aerospace senior or permission.

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 major and TECH 35020; or permission.

45130 Physiology and Human Factors of Flight (3)

A study of the interaction of the human body with the aerospace environment and those human factors that effect aircraft operation. Prerequisite: TECH 15000 or permission.

45150 Applied Flight Dynamics (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: Aerospace Technology major, TECH 35020, 35040, 35150, and PHY 32562; or permission.

45250 Aviation Law and Safety (3)

Study of federal, state, and local laws and enforcements. Defines major causes of aircraft accidents. Emphasis on safety and prevention of violations. Includes actual case studies. Prerequisite: TECH 15000 or permission.

45291 Aerospace Senior Seminar (1)

Seminar on selected topics relating to problems, issues, and conditions of employment within the aerospace industry. "SU" grading only. Prerequisite: Aerospace senior or permission.

45340 Aircraft Maintenance (3)

Fundamentals of aircraft maintenance and resolving maintenance problems on the flight line. Prerequisites: Aerospace senior and permission.

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: TECH 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). Prerequisite: TECH 35746, 35747; corequisite: TECH 45649; or permission.

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. Prerequisite: TECH 35746, 35747; and Corequisite: TECH 45648. Special Fee: \$1,833.00/cr.hr., 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: \$873.00/cr.hr., 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: \$2,736.00/cr.hr.—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: \$2,172.00/cr.hr.—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 or equivalent, and TECH 45649. Special Fee: \$1,893.00/cr.hr.—subject to change.

45659 Basic Aerobatic Flight (1)

Consists of fifteen hours of ground school and fifteen hours of flight training reviewing commercial maneuvers and introducing basic aerobatic maneuvers and related classroom theory. Prerequisites: 2.25 GPA; TECH 25645, and permission. Special Fee: \$700.00 — subject to change.

45700 Aircraft Design (4)

Preliminary 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 system integration. Prerequisites: Aerospace Technology major and TECH 35040, 35150, and PHY 32562, or permission.

46008 Advanced Software Development (3)

Course focuses on the software development life cycle. Students will gain a practical understanding of computer software engineering methods and techniques. Prerequisite: COMT 11008 or 21003.

46010 Technology of Operating Systems (3)

An overview of operating system organization and design fundamentals including CPU scheduling, interrupt processing, concurrent processing. Includes system management topics. Prerequisite: COMT 21004 or MATH 43105.

46011 Technology of Networking (3)

Network design and topologies including software installation, testing, management, and tuning. Also included are intertask communication for process communication on different nodes. Prerequisite: COMT 41010.

46020 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.

46092 Cooperative Education (2-3)

(repeatable once) A University-Industry work-study plan in which students alternate periods of study at the University with periods of employment in industry. Prerequisite: Permission.

THEATRE (THEA)*11000 The Art of the Theatre (3)*

Introduction to theatre as an art form and a cultural phenomenon, exploring how theatre is made, analyzing how it reflects culture, and interpreting its meanings. Prerequisite: None. This course may be used to satisfy the Liberal Education Requirements.

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: None.

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 2 lab hours per week. Prerequisite: Controlled.

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 2 lab hours per week. Prerequisite: Controlled.

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 2 lab hours per week. Prerequisite: Controlled.

21016 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: None.

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 or permission.

21111 Script Analysis (3)

Principles, theories, and techniques of play script analysis for theatrical production. Prerequisite: Controlled.

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 and permission.

21521 Theatrical Drafting (3)

Drafting techniques for all design/technology students. Includes plans, elevations, sections, detailed drawings, light plots. Prerequisite: THEA 11622.

21621 Scene Painting (3)

Techniques of scene painting; emphasis on a variety of techniques through practical projects. Prerequisite: THEA 11622 or permission.

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 21303 and permission.

21701 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, 21700, and permission.

21800 Voice I (3)

Explorations involving various texts and incorporation of voice principles at a more detailed level. Prerequisite: THEA 21303.

21801 Voice II (3)

Continuation of Voice I. Explorations involve various texts and incorporation of voice principles at a more detailed level. Prerequisites: THEA 21301, 21800, and permission.

22092 Practicum I: Design/Tech (3)

(repeatable for a total of 99 hours) Practical experience in theatre production under faculty supervision. "S/U" grading; "IP" permissible. Available for lower-division students only. Required of all theatre majors. Prerequisite: Freshmen/Sophomores only.

22192 Practicum I: Performance (3)

(repeatable for a total of 99 hours) Practical experience in theatre performance under faculty supervision. "S/U" grading; "IP" permissible. Available for lower-division students only. Required of all theatre majors. Prerequisites: Freshmen/Sophomores only.

31112 History of Theatre and Drama I (3)

Survey of the history of theatre and development of theatre and drama from ancient times through the Renaissance. Prerequisites: THEA 21111 and Junior standing.

31113 History of Theatre and Drama II (3)

Survey of the history of theatre and development of theatre and drama from the eighteenth century to the present. Prerequisite: THEA 31112.

31303 Character and Scene Study I (3)

The development of character in the realistic scene. Prerequisites: THEA 21303 and permission.

31304 Character and Scene Study II (3)

Further character and scene exploration; spontaneity and creative choice making. Prerequisites: THEA 31303 and permission.

31306 Musical Theatre Performance (3)

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 major.

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, 21111, or permission.

31522 Lighting Design (3)

Exploration of the tools of the lighting designer applied to design choices; frequent paper design projects. Prerequisites: THEA 11622 or permission.

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 or permission.

31525 Costume Technology (3)

Basic patterning and construction techniques used in theatrical costuming; emphasis on flat and draped patterning. Prerequisite: THEA 11524 or permission.

31560 Scenic Technology (3)

Basic history, theory, and application of theatrical practice in scenery, properties and electrics. Three lecture hours per week and lab arranged. Prerequisite: THEA 11622, THEA 21521, or permission.

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 or permission.

31700 Movement III (3)

Character creation and enhancement through movement; physicalization of intention, mask work, centers, animal essence, and scene counterpoint. Prerequisites: THEA 21701, 31303, and permission.

31800 Voice III (3)

Continued work on the actor's vocal instrument; includes articulation, diction, removing regional accents, IPA; continued text work. Prerequisites: THEA 21801, 31303, and permission.

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.

41026 Playwriting (3)

(repeatable for a total of 6 hours) Principles underlying playwriting for the contemporary theatre; analysis of short play form. Prerequisite: None. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

41027 Advanced Playwriting (3)

(repeatable for a total of 6 hours) Application of principles of playwriting to the longer play and to variations from traditional realism; play analysis and composition. Prerequisite: THEA 41026.

41093 Variable Title Workshop in Theatre (1-5)

Prerequisite: None.

41095 Special Topics (1-3)

(repeated registration permitted) Offered irregularly when unusual resources permit a topic different from existing courses. Topic will be announced when scheduled. Prerequisite: Permission.

41096 Independent Study: Theatre (1-2)

(repeatable for a total of 4 hours) Selected research topics in theatre; to be elected only after all coursework in study area completed. "IP" grade permissible. Prerequisite: Permission.

41110 Theatre Criticism (3)

Four productions in the region will be used as a means of studying aesthetic and socio/historical contexts involved in the theatre event. Developing writing skills through essays about the productions will be an important part of the course. Prerequisite: Junior/Senior Standing. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

41111 History of Production and Performance I (3)

A survey of issues and ideas in the history of theatrical production and performance from the Renaissance through the late nineteenth century. Prerequisite: THEA 31112.

41112 History of Production and Performance II (3)

A survey of issues and ideas in the history of theatrical production and performance in the 20th century. Prerequisite: THEA 31112.

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)

Truthful acting and the demands of theatrical style; Elizabethan/Jacobean, nineteenth-century realism. Prerequisites: THEA 31304 and permission.

41304 Styles of Acting II (3)

Continued exploration of problems in theatrical style and period: Restoration, Moliere, Edwardian. Prerequisites: THEA 31303 and permission.

41305 Professional Aspects (3)

An introduction to the acting profession; the audition, resumes and photographs, finding an agent, making rounds; the job market, unions, and career prospects. Prerequisites: Junior standing and permission.

41399 Senior Project (2)

An individual or group performance project developed with the acting faculty. Prerequisites: THEA 41304 and permission.

41401 Advanced Directing (3)

Advanced work in directing for the theatre. Topics include the director as creative/interpretative artist, and the director and the actor; students direct individual projects. Prerequisites: THEA 11303, 31401 and permission.

41521 Electricity and Optics (3)

Technical exploration of dimmer control systems, solid state dimmer design, optics, and lighting instrument design. Includes discussion and development of special effects and projection problems. Prerequisites: THEA 11522, 21521, or permission.

41522 Design Studio: Lighting (3)

Advanced study of lighting design, emphasizing artistic style and concept through a variety of design problems. Prerequisite: THEA 31522 or permission.

41523 Sound Design and Technology (3)

Sound design for the theatre, sound production, and sound reinforcement techniques. Introduction to electronic equipment: mixing consoles, amplifiers, speakers. Prerequisite: Permission.

41524 Design Studio: Costume (3)

Advanced study in costume design. Genres, 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.

41525 Props and Crafts (3)

Examination of the processes related to the creation and procurement of scenic and costume props. Prerequisites: THEA 31525, 31622, and/or permission.

41529 Television Production: Costume and Makeup (3)

Advanced study of the process of designing costumes and makeup for television with an emphasis on standards in the profession. Prerequisite: THEA 21016 or permission.

41560 Theatre Fabrication Technology (3)

History of technical production practice, materials theory and application in scenic construction technology. Prerequisite: THEA 11622, 21521 or permission.

41621 Presentation Media (3)

Advanced process techniques in rendering, model building, and design presentation for the scenic and costume designer. Prerequisites: THEA 11622, 31524, 31622 and permission.

41622 Design Studio: Scenery (3)

Advanced study in scenic design. Explores genres, styles, performance spaces, including practical considerations. Prerequisite: THEA 31622 or permission.

41623 Television Production: Scenery and Lighting (3)

Advanced study of the process of designing scenery and lighting for television production. Prerequisites: JMC 43042, THEA 41622 or permission.

41700 Movement: Styles (3)

Study of period movement, style, and dance; special problems in movement for the stage. Prerequisites: THEA 31700, 41303; Corequisite: THEA 41800.

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.

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: Permission.

41800 Voice/Speech: Styles (3)

Integration of vocal work with period texts. Students learn to approach text with more complex demands. Prerequisites: THEA 21801; Corequisite: THEA 41700.

41992 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 a theatre company. "SU" grading. "IP" permissible. Prerequisites: Junior standing and permission.

42092 Practicum II: Design/Tech (3)

(repeatable for a total of 99 hours) Advanced practical experience in theatre production under faculty supervision. "S/U" grading; "IP" permissible. Available for upper-division students only. Required of all theatre majors. Prerequisite: Juniors/seniors only.

42192 Practicum II: Performance (3)

(repeatable for a total of 99 hours) Advanced practical experience in theatre performance under faculty supervision. "S/U" grading; "IP" permissible. Available for upper-division students only. Required of all theatre majors. Prerequisite: Junior/senior standing.

UNDERGRADUATE STUDIES (US)

10001 *University Orientation (1)*

Assist students in making the transition to the University, improving and refining academic skills, participating in the advising system, and selecting or confirming a major. Required of all entering freshmen. "SU" grading. Prerequisite: None.

10003 *Reading Strategies for College Success (3)*

Assist students to develop the reading skills necessary for successful completion of college coursework. Emphasis on improving reading comprehension. Hours not counted toward graduation. Letter grades. Prerequisite: None.

10006 *Study Strategies for College Success (3)*

Assists students to develop and apply reading and study strategies for successful completion of college coursework. Emphasis on improving study strategies. Hours not counted toward graduation. Letter grades. Prerequisite: Concurrent registration in selected LER or permission.

20201 *Student Instructor Training (2)*

This course prepares student instructors to pair with a faculty member to teach University Orientation (US 10001). This course meets for twelve weeks and three Saturdays. "SU" grading. Prerequisite: US 10001.

20202 *New Student Instructor Seminar (2)*

This course is required for all student instructors who are teaching University Orientation. Student development theory classroom management, communication skills, lesson planning, assertiveness training, and Orientation course content. "SU" grading. Prerequisite: US 20201 or permission.

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. "SU" grading. 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 University Orientation and who have taught University Orientation previously. Extended training & resource assistance. "SU" 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 orientation instructors. Prerequisite: US 20202 or permission.

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 or permission.

VOCATIONAL EDUCATION (VOED)

34820 *Teaching Business Education Subjects (3)*

Objectives, methods, and materials for teaching typewriting, shorthand, and practice courses integrating the office skills. This course includes 35 field/clinical hours. Prerequisite: Permission of instructor.

36001 *Introduction to Vocational Teaching (6)*

For beginning vocational teachers. Purposes, operations of vocational education; study and guided practices in teaching techniques, organizing materials, planning lessons; includes the preservice program. Prerequisite: Must be admitted into the Professional Development Program for teachers recruited from business and industry.

36002 *In-Service Teaching I (2)*

Overview of teaching process in vocational education. Emphasizes techniques of skill development and assessment, includes organizing for instruction, individual behavior, organizational relationships, and application steps. Prerequisite: Must be admitted into the Professional Development Program for teachers recruited from business and industry.

36003 *In-Service Teaching III (2)*

Continuation of VOED 36002. Involves on-site, in-service education for vocational instructors and organized class instruction. Prerequisite: Must be admitted into the Professional Development Program for teachers recruited from business and industry.

36004 *Teaching Methods and Techniques in Vocational Education (3)*

This program involves identifying the use of effective instructional materials, techniques of effective communication and motivation, youth organizations, sharing of lesson plan, and case studies. Prerequisite: Must be admitted into the Professional Development Program for teachers recruited from business and industry.

36005 *In-Service Teaching III (1)*

Involves on-site, in-service education for vocational instructors at the second year level. Deals with in-depth planning and organization of instructional materials and strategies. Prerequisite: Must be admitted into the Professional Development Program for teachers recruited from business and industry.

36006 *In-Service Teaching IV (1)*

Involves on-site, in-service educational for vocational instructors at the second year level. Deals with in-depth planning and organization of instructional materials and strategies. Prerequisite: Must be admitted into the Professional Development Program for teachers recruited from business and industry.

36014 Evaluating Techniques and Practices in Vocational Education (3)

Study and construction of evaluation devices for use in laboratory and related technology courses, test construction, standardized and nonstandardized test procedures. This course includes 10 field/clinical hours. Prerequisite: None.

36015 Methods of Vocational and Technology Education (3)

Organization and management of classroom and laboratory; includes purchasing equipment and supplies, safety instruction planning, establishing policies, maintaining records, and individual and group instructional strategies. Prerequisite: None.

36020 Occupational Experience: Technology (12)

Written examination covering technology of a specific occupation. Prerequisite: Department permission.

36021 Occupational Experience: Manipulative (12)

Manipulative examination covering competencies and techniques of an occupation. Prerequisite: Department permission.

40093 Variable Title Workshop in Vocational Education (1-5)

Topics of special interest to students desiring to intensify their knowledge in a particular area or areas of vocational education. Prerequisite: Department permission.

44618 Elements of Experience-Based Education (3)

Examination of various aspects of experience-based education includes exploratory, observation, laboratory and paid work experiences. Prerequisite: None.

45001 Teaching Vocational Home Economics (3)

Principles and practices related to the teaching of home economics. Selection and organization of subject matter and instructional materials for classroom and laboratory. This course includes 70 field/clinical hours. Prerequisite: Advanced standing.

45002 Teaching Vocational Home Economics — Homemaking and Consumer (3)

Basic fundamentals of establishing and operating a consumer and homemaking vocational home economics program. This course includes 48 field/clinical hours. Prerequisite: VOED 45001 or equivalent.

45003 Teaching Vocational Home Economics — Job Training (3)

Principles and practices related to teaching a job training home economics program. This course includes 32 field/clinical hours. Prerequisites: VOED 45001 or equivalent.

45100 Teaching Intensive and Cooperative Business Education (3)

Overview for teaching the Intensive and Cooperative Business Education programs. Required for VBOE teacher certification. This course includes 25 field/clinical hours. Prerequisite: None.

45372 Issues in Vocational/Technology Subjects (3)

Exploration of issues and trends unique to specific vocational and/or technology education subjects. Prerequisite: None.

45374 Strategies for Teaching Personal Selling (3)

A study of the nature of selling activities and the knowledge, skills, and attitude needed in order to teach salesmanship in vocational education programs. Prerequisite: None.

45375 Emerging Occupations in Marketing Education (3)

Review and examination of current occupational needs for marketing education at secondary and postsecondary levels. Exploration of occupational data in new marketing occupations/careers. Prerequisite: None.

45376 Entrepreneurship Education (3)

Study of structure and changing environment of service marketing; special emphasis on the qualities/characteristics needed to start and operate a service business. This course includes 30 field/clinical hours. Prerequisite: MKTG 35010 or permission.

45377 Vocational and Technology Education: Advanced Methodologies (3)

Selection, organization, and presentation of subject matter pertaining to specific subjects in vocational and/or technology education. Emphasis on methods and techniques through theory and practice. Course includes 30 field/clinical hours. Prerequisite: None.

45391 Variable Topic Seminar: Marketing Education (1-4)

Consideration of various, timely research topics which will be selected by the instructor and students and developed through readings, discussions, and individually written professional papers. This course includes 18 field/clinical hours. Prerequisite: None.

45901 Organization and Operation of An Occupational Work Adjustment Program (2)

Provides students with knowledge necessary to organize and implement an OWA Program. This course includes 8 field/clinical hours. Prerequisite: None.

45902 Organization and Operation of An Occupational Work Experience Program (2)

Provides students with knowledge necessary to organize and implement an OWE Program. This course includes 10 field/clinical hours. Prerequisite: None.

45903 Work Experience Curriculum Development (2)

Factors and techniques involved in course of study construction. Development of philosophy, objectives, and instructional practices. Emphasis on content selection, organization, and development. Includes development of a six-week course of study. This course includes 10 field hours. Prerequisite: None.

46001 Organization of Vocational and Technology Education (3)

Study of the principles and subject areas related to vocational and technology education at middle school, secondary and adult education levels. Prerequisite: None.

46005 Principles of Career Education (3)

Study of the concept, basic principles, and current practices in career education. Includes a review of programs, methodology, instructional materials, and evaluative criteria relative to career education. Prerequisite: None.

46008 Industrial Relations and Personnel Practices (3)

Personnel problems in modern industrial and labor organizations as to vocational education: human relations problems in modern industry; safety and social industrial planning. Prerequisite: None.

46009 Educational, Business, and Industrial Coordination (3)

Principles and procedures of coordination between vocational programs and business and industry. Relationship of educational system and community. Use of advisory committee, placement, and follow-up. Prerequisite: None.

46017 Youth Organizations in Vocational Education (3)

Study of youth organizations in vocational education with emphasis on the organization and purposes of such groups. Prerequisite: None.

46018 Disadvantaged Youth and Vocational Education (3)

Developing an understanding of disadvantaged youth stressing their characteristics as they pertain to vocational education programs. Prerequisite: None.

46019 Coordination in Vocational Cooperative Education Programs (3)

Duties, problems and techniques of home, school, and work coordination. Training station selection, job development, servicing the job station, and coordinating classroom and work experience. This course includes 18 field/clinical hours. Prerequisite: None.

46020 Curriculum Guide: Design and Application (3)

Methods and techniques involved in developing and utilizing a curriculum guide in vocational and technology subjects. This course includes 15 field/clinical hours. Prerequisite: None.

46022 Vocational Computer Application (3)

Terminology, concepts, tutorial and management systems for programming in vocational education. Prerequisite: Permission.

46025 Training in Industry (3)

Present structure, practices and trends of training programs conducted by industry; implications of industrial training programs for public education. Prerequisite: None.

46026 Adult Vocational Education (3)

An introduction to the theories of learning and teaching as applied to teaching adult students in programs of Adult Vocational Education. Prerequisite: None.

46027 Teaching Handicapped Students in Vocational Education (3)

Rules and regulations, teaching strategies, curriculum adaptations, support services, student learning techniques, handicapping conditions and employability options of the handicapped in vocational education programs. Prerequisite: None.

46028 Management of Community Resources (3)

Development of basic understanding and framework encompassing responsibilities of the vocational education teacher with community resources including seven types of resources for educational input. Prerequisite: None.

46029 Training and Development (3)

An overview of training and development activities in profit and non-profit organizations. Principles of teaching adults in the workplace are supplemented with curriculum design and instructional methodologies. Prerequisite: C&I 20000.

46030 The Two-Year College (3)

An overview of the role of two-year collegiate educational institution in America. Teaching curricular and administrative functions are emphasized. Prerequisite: None.

46031 Vocational Student Teaching (8-10)

Provides a 10-12 week student teaching experience in a vocational program setting. See "Student Teaching" section in this *Catalog*. Co-requisite VOED 49525 Inquiry into Professional Practice. "IP" permissible. Prerequisite: Eligible for admission to student teaching.

46091 Variable Topic Seminar in Vocational Education (1-4)

Variable topic seminar for study in specialized areas and topics related to vocational education. Normally designed around research and theory applied to practice. Prerequisite: None.

46092 Internship, Practicum, and Field Experience (2-5)

Supervised internship, practicum or field experience in vocational education. Prerequisite: None.

46095 Special Topics in Vocational Education (1-3)

Specialized offerings in response to emerging or selected program needs in vocational education. Prerequisite: None.

46096 Individual Investigation in Vocational Education (1-3)

An individual investigation into problems and topics in vocational education. The investigation is pursued on an individual basis with an assigned faculty member. Prerequisite: None.

46192 Practicum: Occupational (1-6)

Supervised work experience in occupation to obtain initial experience or to update skills. Prerequisite: Permission.

46492 Practicum: Vocational Evaluation (1-5)

Field based experience in vocational evaluation. Prerequisite: Must be employed as a vocational evaluator.

47492 Training and Development Field Experience (3)

A variety of training observations, interviews and experiences in actual setting. Students obtain experiences in manufacturing, service, and non-profit settings. "SU" grading only. Prerequisite: VOED 46029.

48492 Post-Secondary Field Experiences (3)

Observation, interviews and experiences in post-secondary educational institutions including technical institutes and two-year colleges. "SU" grading only. Prerequisite: VOED 46030.

48592 Training and Development: Internship and Seminar (6)

On-site experiences in training and development activities. Experiences are coordinated and supervised with university and organization supervisors. An individual training plan is developed. "SU" grading only. Prerequisite: VOED 46029.

48692 Post-Secondary Teaching: Internship and Seminar (6)

Teaching and internship activities in post-secondary educational institutions. Students will teach in real-life classroom settings. An individualized plan is developed. "SU" grading only. Prerequisite: VOED 46030.

49525 Inquiry into Professional Practice (3)

Interdisciplinary inquiry into vocational/technology teaching as a professional practice in education; emphasis on teacher as disciplined investigator. Final course of four. Combination of themes; utilization of teaching/learning technologies. Prerequisite: None.

