

Undergraduate Courses by Department

African and African American Studies (AAS)

AAS 100 INTRODUCTION TO AFRICANA STUDIES

3, 3/0; DI23

Origins of Africana Studies in the social movements of the 1960s. Africans as humanity's first people and creators of complex civilizations. Exposing white supremacy and anti-Black racism as philosophical pillars of the modern world. Critical review of traditional majors and professions through the lens of Africana Studies. Offered every semester.

AAS 189 TOPICS COURSE

3, 3/0

Offered occasionally.

AAS 200 BLACKS IN BUFFALO

3, 0/0

Prerequisite: AAS 100, or permission of instructor. African-centered, multidisciplinary study of Blacks in Buffalo. Overview of intersections of race, class, and gender, with attention to the perspectives of Black Buffalonians, in understanding the historical forces that shape(d) the experiences of African Americans in Western New York. Contemporary issues central to the life experiences of Blacks in Buffalo. Offered every other fall.

AAS 209 SUB-SAHARAN AFRICAN MUSIC AND CULTURES

3, 3/0; GA23

Study of the cultures of sub-Saharan Africa focused on the histories and musics from four specific regions. Two-thirds of class time is in lecture format; one-third is dedicated to learning and performing African rhythms on percussion instruments. Offered annually. Equivalent Course: MUS 209

AAS 218 AFRICAN AMERICAN POLITICAL CULTURE

3, 3/0

Political beliefs, attitudes, and practices that pertain to African American politics in a cultural context; causality and linkage inherent in the reciprocal relationship between African Americans and the American political system. Offered fall only. Equivalent Course: PSC 218

AAS 221 THE HISTORY OF BLACK EDUCATION IN AMERICA

3, 3/0

The role of blacks in the American educational system. Changes that have taken place to improve or retard education for blacks. Approaches for providing meaningful education for blacks now and in the future. Offered occasionally. Equivalent Course: SPF 221

AAS 222 THE DEVELOPMENT OF MODERN EDUCATION IN AFRICA

3, 3/0

Educational changes in Africa from the colonial era to the present and their effects on social and political issues in Africa and abroad. Offered occasionally. Equivalent Course: SPF 222

AAS 230 DANCE TECHNIQUES FROM THE AFRICAN AMERICAN PERSPECTIVE

3, 2/2

The continuity of African American dance from traditional African to contemporary American through dance technique. Introduction to several dance forms: traditional, modern, and jazz; the cultural history that influenced these dance forms; and the contributions of significant choreographers. Dance performance attendance is required. Offered fall semester. Equivalent Course: DAN 230

AAS 234 THE POLITICS OF BLACK DANCE IN AMERICA

3, 3/0; DI23

The development of African American dance and the contributions of African American artists through lecture and film. Emphasis on the evolution of traditional African dance forms and their influence on the contemporary dance vernacular. Dance performance attendance is required. Offered as required.

Equivalent Course: DAN 234

AAS 240 AFRICAN AMERICAN LITERATURE TO 1940

3, 3/0; DI23, HU23

African American slave narratives, poetry, fiction, essays, and drama from the eighteenth century to 1940. The influence of spirituals, gospel, the blues, jazz, sermons, and folktales on African American writing; the Harlem Renaissance of the 1920s and 1930s; and the development of African American revolutionary thought. Offered fall only.

Equivalent Course: ENG 240

AAS 241 AFRICAN AMERICAN LITERATURE SINCE 1940

3, 3/0; DI23, HU23

Realism, naturalism, modernism, and postmodernism in African American literature; black revolutionary thought and artistry in the 1960s and 1970s; neo-slave narratives; African American poetry, fiction, essays, and drama from 1940 to the present; influence of spirituals, gospel, the blues, jazz, sermons, and folktales on contemporary African American writing. Offered spring only.

Equivalent Course: ENG 241

AAS 250 JAZZ DANCE TECHNIQUE I

3, 2/2

Technique, studies, and compositional problems illustrating the diverse possibilities of jazz dance, with special attention to the ethnic foundation of this form. Dance performance attendance is required. Offered alternate fall semester.

Equivalent Course: DAN 250

AAS 300 BLACK THOUGHT: THEORETICAL PERSPECTIVES ON CONSCIOUSNESS AND LIBERATION

3, 3/0

Prerequisite: AAS 100, or instructor permission. Prepares students to engage with conceptual frameworks within the discipline of Africana Studies. Focuses on works from thinkers from Africa and the African Diaspora, to understand the varied ways African people globally have made sense of and tried to change the world, before and since the holocaust of enslavement. Offered every fall semester.

AAS 304 MODERN JAZZ

3, 3/0

Prerequisite: MUS 206. An explanation of the history and development of modern jazz from 1941 to the present. Offered occasionally.

AAS 305 MOTHER AFRICA

3, 3/0; GA23

Prerequisite: AAS 100, or ANT 101, or Instructor Permission. A survey of Africa's contributions to the human genome, world history, and advanced civilizations, from ancient Nile Valley Civilizations to current political formations. Understands Blacks in the diaspora as part of Africa's legacy to the making of the modern world. Emphasizes African people's values, perspectives, and calls for Black liberation. Offered occasionally.

Equivalent Course: ANT 305

AAS 306 AFRICA TO 1800

3, 3/0; GA23

Prerequisite: Upper-division status or instructor permission. African history from the Paleolithic period to 1800. Development of agriculture, ancient civilizations of Africa, iron working societies, the trans-Saharan trade, the impact of Islam and Christianity, traditional African political and social arrangements, the slave trade, and the European presence in early modern Africa. Offered occasionally.

Equivalent Course: HIS 306

AAS 321 THE AFRICAN AMERICAN FAMILY

3, 3/0; DI23

The examination of the relationship between American social institutions and the African American family and familial relations within the African American family. Offered fall only.

Equivalent Course: SOC 321

AAS 322 AFRICAN AMERICAN HISTORY

3, 3/0

Heritage of black Americans; African Americans' existence under slavery; their role in influencing historical events; activity in the Civil War period; the freed men during reconstruction; migration to the north and adjustment to urban life. African American leaders, institutions, and ideas, and their impact on modern America. Offered every semester.

Equivalent Course: HIS 322

AAS 326 BLACK FEMINIST THOUGHT

3, 3/0

This course provides an introduction to Black feminist thought from the 19th century through the present. Topics include the origins and development of intersectional thinking, intersectionality in contemporary social thought, and critical race theory. The course draws from multiple academic disciplines, public intellectualism, and activist work. Offered occasionally.

Equivalent Courses: SOC 326, WGS 326

AAS 333 AFRICAN INTERNATIONAL RELATIONS

3, 3/0

African international politics vis-à-vis international relations theory, models, and concepts; power; multipolarity; bipolarity; pan-Africanism, North-South debate; approaches to international politics; and state and international organizations as international actors. Offered occasionally.

Equivalent Course: PSC 333

AAS 334 RACE, CLASS, GENDER, AND SEXUALITY IN MEDIA

3, 3/0; DI23

Prerequisite: CWP 101. Study of the intersection of race, social class, gender, and sexuality in popular culture and media, through a critical analysis of media representations of these identities. Offered every fall.

Equivalent Courses: COM 333, SPC 333

AAS 337 AFRICA SINCE 1800

3, 3/0; GA23

African history since 1800. Abolition of the slave trade, pre-colonial culture and society, partition of Africa by European nations, impact of colonial regimes, African resistance movements, colonial nationalism, world wars and decolonization, Apartheid in South Africa, impact of the Cold War, and neo-colonialism. Offered occasionally.

Equivalent Course: HIS 337

AAS 340 ETHNOMUSICOLOGY

3, 3/0

Prerequisite: MUS 303. Lectures, readings, and recordings introducing principal musical traditions of selected non-Western cultures, such as African, Indic, and Sinitic. Consideration of the African American tradition, including jazz and rock. Includes individual projects of music or cultural analysis. Required for music majors. Offered occasionally.

AAS 341 AFRICAN-AMERICANS AND CIVIL RIGHTS

3, 3/0

History of the landmark court decisions, laws, and governmental policies regarding the civil rights of African Americans. The course examines some of the historic relationships among race, racism, law, and public policy in America. Focuses on resistance, protest, and the quest for equality in America. Offered occasionally.

Equivalent Course: HIS 341

AAS 343 WHY AFRICA MATTERS

3, 3/0

Prerequisite: AAS 100. Introduces students to Black or African Psychology. Focuses on the history of Black Psychology in the context of the turbulent sixties. Explores discipline's philosophical foundations in African cultures globally. Highlights the theoretical ingenuity and clinical application of the discipline. Offered every spring.

AAS 349 WEST AFRICAN DRUMMING ENSEMBLE

1, 1/0

Prerequisite: Instructor permission. Introduction to traditional West African rhythms on djembes, dundun drums, and iron bells. Students explore cultural contexts and learn to give and respond to rhythmic signals, learn to play different rhythms simultaneously, and learn culturally and rhythmically appropriate improvisation techniques. Offered every semester.

Equivalent Course: MUS 349

AAS 351 SOCIOLOGY OF RACE AND ETHNICITY

3, 3/0; DI23

Prerequisite: SOC 100. The study of racial and ethnic groups in American and other societies; focuses on forms, causes, and effects of prejudice and ethnic conflicts, and the changing relationships of these groups to the larger society. Possible solutions to social problems involving issues of race and ethnicity are also explored. Offered every semester.

Equivalent Course: SOC 351

AAS 354 THE MODERN CARIBBEAN

3, 3/0

Prerequisite: CWP 102 or equivalent. Introduction to the conundrums of freedom, independence, and sovereignty as experienced in the modern Caribbean. Topics will include the Haitian Revolution; abolitionism and emancipation; labor conflicts between freedpeople and planters; race, religion, and imperialism; American expansionism and occupation; decolonization, departmentalization, and independence; globalization and nonsovereignty; contemporary politics and society.

Equivalent Course: HIS 354

AAS 357 BLACKS IN TECHNOLOGY: INNOVATING THE FUTURE

3, 3/0

Prerequisite: AAS 100. Equips students with technical competency in ground-breaking tech and critical understanding of tech segregation that disproportionately affects Black people. Offered every fall.

AAS 360 AFRICANA PHILOSOPHY

3, 3/0

Prerequisites: One PHI or AAS course. Philosophical thought across the African diaspora. Both historic and contemporary responses to issues specific to the Black experience across the globe, such as understanding freedom, rationality, and humanity from the position of the formerly enslaved and/or colonized, and analysis regarding the intersections of race, gender, and white supremacy. Offered every spring.

Equivalent Course: PHI 360

AAS 361 RACE AND PROGRESS

3, 3/0

African American philosophical thought with a specific focus on the concept of progress. Both historic and contemporary responses to issues specific to the African American experience, such as understanding the concepts of race and racism, social and political forces required to generate progress, and the limits of progress within the Black community. Offered fall semester only.

Equivalent Course: PHI 361

AAS 366 AFRICAN AMERICAN ART

3, 3/0

Prerequisites: AAD 251 and AAD 252 or FAR 250 and FAR 251. Survey of African American Art. Examines African American art as well as the relationship of art to politics and the formation of racial/cultural identity. Offered alternate years.

Equivalent Course: FAR 366

AAS 373 "SAVING" AFRICA

3, 3/0

Prerequisite: AAS 100, or upper division standing, or permission of instructor. Examines what Western efforts at foreign development, including contemporary globalization, look like from an African vantage. Incorporates ethnographic case studies, theoretical lenses, and practical implications for doing development work into the examination. Offered every fall semester.

AAS 380 ART OF AFRICA

3, 3/0

The history of art in Africa from prehistory through the twentieth century. Arts from diverse regions of the continent are examined in their cultural context, with an emphasis on local and regional variations in style and iconography in the domestic, sacred, and royal arts. African responses to the development of slavery, imperialism, and other external stimuli are considered in relation to the use and trade of raw materials and the creation of new symbolic forms. Offered alternate years.

Equivalent Course: FAR 380

AAS 389 TOPICS IN AFRICANA STUDIES

1-3, 1/0

Examination of current issues or topics in Africana Studies; offered occasionally.

AAS 421 DRAMA FROM THE AFRICAN AMERICAN PERSPECTIVE

3, 3/0

Prerequisites: CWP 102 or equivalent. An exploratory and critical analysis of African-American playwrights (and playwrights of African descent) and their works. Students will participate in play readings and discussions related to the plays' social and historical context. Offered biennially.

Equivalent Course: THA 421

AAS 425 RACE, ETHNICITY, AND THE ADMINISTRATION OF JUSTICE

3, 3/0

Prerequisites: CRJ 101, CRJ 303 and senior level status or instructor permission. The current state of race relations in society and the criminal justice system; the historical experiences of different racial and ethnic groups in the United States and their relation to law and the criminal justice system as victims, offenders, and officials in criminal justice institutions. Offered every semester.

Equivalent Course: CRJ 425

AAS 468 READINGS IN AFRICAN AMERICAN HISTORY

3, 3/0

The major historical writings on selected periods and topics in African American history. Readings, discussions, and writing book reviews and biographical essays. Offered occasionally.

Equivalent Course: HIS 468

AAS 469 BLACK PROTEST AND LEADERSHIP IN THE U.S. IN THE TWENTIETH CENTURY

3, 3/0

The black protest movements and leaders in twentieth-century America. Offered occasionally.

Equivalent Course: HIS 469

AAS 485 ADVANCED SEMINAR IN AFRICANA STUDIES

3, 3/0

Prerequisites: 12 credits of AAS and senior standing. Detailed exploration of contemporary issues affecting African and African American peoples. Capstone course that seeks to integrate the knowledge acquired in the interdisciplinary study of African and African American peoples. Emphasis on analysis of issues, evaluation of solutions, and creative problem solving.

AAS 488 INTERNSHIP

1-6, 0/0

Prerequisite AAS 100. Guided, supervised field experiences that complement the academic program. Students must have background of courses or experiences within the area of interest and approval by the program coordinator. Offered occasionally.

AAS 495 SPECIAL PROJECT

1-3, 0/0

AAS 499 INDEPENDENT STUDY

3-9, 0/0

Prerequisite: Faculty adviser permission must be secured prior to registration. Offered occasionally.

Anthropology (ANT)

ANT 100 HUMAN ORIGINS

3, 2/2; NS23

Introduction to biological anthropology and archeology. Biological anthropology: evolutionary theory and genetics, the human fossil record, and the study of non-human primates. Archeology scientifically reconstructs past cultures: the basics of archeological data and dating methods. The transformation from a hunting and gathering lifestyle to one based on food production and the

consequences of this transformation that include, in some instances, the development of complex sociopolitical institutions and state societies. Offered every semester.

ANT 101 UNDERSTANDING CULTURE

3, 3/0; SS23

On human culture and society; considering structures of meaning, belief, kinship, family, marriage, sexuality, spirituality, and artistic life across time and in different environmental, economic, and political settings. Offered every semester.

ANT 189 TOPICS COURSE

1-3, 1/0

Offered occasionally.

ANT 200 EXPLORATIONS IN ANTHROPOLOGY

3, 3/0

Prerequisites: ANT 100, ANT 101, or permission of instructor. Research skills necessary to do well in upper-division Anthropology courses: finding anthropological studies in the literature, reading scientific papers and ethnographies, and conducting basic data analysis. Intended for Anthropology majors and minors early in their academic careers. Offered every spring.

ANT 220 CASE STUDIES IN BIOLOGICAL ANTHROPOLOGY

3, 3/0

Introduction to biological anthropology through detailed examination of exemplary case studies covering a broad range of topics in biological anthropology. The process of inquiry in physical anthropology, including initial conception of the research question, methodology, results, and conclusions. Ethics of biological anthropology research. Offered occasionally.

ANT 244 FOLKLORE AND LIFE

3, 3/0

Prerequisite: CWP 102. Introduction to the major genres of folklore and folk life and their function in contemporary society; including roots music, ethnic and occupational folklore, rites of passage and calendar customs, and traditional narratives. The relationship between folklore and popular culture. Offered occasionally.

ANT 250 HISTORICAL ARCHAEOLOGY

3, 3/0

Prerequisite: ANT 100. Archaeology of the United States from 1500 through the American Civil War. Material life and diversity of sociocultural experiences in the United States during this period. Offered spring odd years.

ANT 295 RESEARCH EXPERIENCE IN ANTHROPOLOGY

1-3, 0/0

Prerequisite: Instructor permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

ANT 300 INDIGENOUS PEOPLES OF WESTERN NORTH AMERICA

3, 3/0; DI23, GA23

Prerequisite: ANT 100 or ANT 101 or Instructor permission. Ways of life of the original peoples of Western North America, reconstructed using archaeology, historic documents, and oral tradition (i.e. Ethnohistory). Tribal nations of the Plains, Northwest Coast, Southwest, Great Basin, Plateau, and California. Effects of outside exploration/colonization and the persistence of Indigenous peoples in the modern world. Offered every other fall, even years.

ANT 301 INDIGENOUS PEOPLES OF EASTERN NORTH AMERICA

3, 3/0; DI23, GA23

Prerequisite: ANT 100 or ANT 101 or Instructor permission. Ways of life of the original peoples of Eastern North America, reconstructed using archaeology, historic documents, and oral tradition (i.e., Ethnohistory). Wendat, Haudenosaunee and Powhatan confederacies; Cherokee; Effects of European exploration and colonization; persistence of Indigenous Eastern North American peoples in the modern world. Every other fall, odd years.

ANT 303 THE ANTHROPOLOGY OF EUROPE

3, 3/0

Prerequisite: ANT 101. Introduction to the anthropology of Europe and European culture. The course discusses the traits and development of distinctive cultural features of European peoples through cultural histories of Europe in general and ethnographic case studies. It related the development and influence of Western civilization to other regions of the world. Offered occasionally.

ANT 305 MOTHER AFRICA

3, 3/0; GA23

Prerequisite: AAS 100, or ANT 101, or Instructor Permission. A survey of Africa's contributions to the human genome, world history, and advanced civilizations, from ancient Nile Valley Civilizations to current political formations. Understands Blacks in the diaspora as part of Africa's legacy to the making of the modern world. Emphasizes African people's values, perspectives, and calls for Black liberation. Offered occasionally.

Equivalent Course: AAS 305

ANT 306 PEOPLES OF ASIA

3, 3/0

Prerequisite: ANT 101. Cross-cultural comparisons of indigenous and modern nations of Asia. Emphasis on regional, linguistic, social, political, religious, economic, and aesthetic characteristics as well as historic and recent population migrations on the Asian continent and surrounding islands. Offered occasionally.

ANT 307 URBAN ANTHROPOLOGY

3, 3/0

Prerequisite: ANT 101. Study of the origins and evolution of cities around the world; their impact upon the human family and other social relationships, and the physical environment. Early and recent viewpoints on life in cities, suburbs and rural communities. Offered occasionally.

ANT 308 ARCHAEOLOGICAL METHOD

6, 0/0

Prerequisite: ANT 100. Laboratory and field methods in archaeology. Opportunity for practical experience with various archaeological techniques. Offered summer only.

ANT 310 MESOAMERICAN ARCHAEOLOGY

3, 3/0; GA23

Prerequisite: ANT100, or Instructor Permission. Overview of ancient civilizations of Mesoamerica, including Olmecs, Maya, Teotihuacan, and Aztecs, using archaeological evidence, hieroglyphic texts, iconography, and ethnohistorical sources. Comparative analysis of art, architecture, religion, politics, economics, and social organization of Mesoamerica societies from archaic foragers through Spanish contact. Offered every other year.

ANT 312 ARCHAEOLOGY OF NORTH AMERICA

3, 3/0; DI23, GA23

Prerequisite: ANT 100 or Instructor permission. Archaeological record of Indigenous Peoples in Ancient North America beginning with the earliest human presence. Paleo-Indian, Archaic, Woodland, and Mississippian archaeological periods. Theoretical frameworks, methods, and ethical issues. Pseudoscientific and political uses of archaeology. Every other spring, even years.

ANT 315 RESEARCH METHODS IN CULTURAL ANTHROPOLOGY

3, 3/0

Prerequisite: ANT 101. Research methods in cultural anthropology covering fieldwork, participant-observation, sampling, measurements, documentation, statistical and cross-cultural methods. Offered fall even years.

ANT 321 PRIMATOLOGY ECOLOGY AND CONSERVATION

3, 3/0; NS23

Prerequisite: ANT 100. Study of living prosimians, monkeys, and apes, including taxonomy, social organization, feeding ecology and ranging, community ecology, and conservation; field studies of natural populations. Offered in spring odd years.

ANT 322 RESEARCH METHODS IN PRIMATOLOGY

3, 1/4

Prerequisite: ANT 321. Study and practice of behavioral observation techniques used in primatology. Independent research project on the primates at the Buffalo Zoo. Presentation of research results to the campus community (e.g., the Student Research and Creativity Celebration) and at the Buffalo Zoo.

ANT 323 DISEASE AND GLOBAL HEALTH

3, 3/0; NS23

Prerequisites: ANT 100 or Instructor permission. The global burden of disease on morbidity, mortality, and development. How the diseases that afflict humans have changed over our cultural evolution and have impacted our biological evolution. The relationship between cultural & personal activities and disease. Understanding epidemiological concepts through recent events. Racism as a public health crisis. Offered in spring, even years.

ANT 324 THE HUMAN SKELETON

3, 3/0

Prerequisite: ANT 100. Hands-on experience with natural human skeletons to learn all bones, landmarks, and features of the bones; how to determine the side of the body the bone came from, determine if a bone is from a male or female, estimate age at death, and estimate stature of the individual. Offered fall only.

ANT 325 FORENSIC ANTHROPOLOGY

3, 3/0

Prerequisite: ANT 324. Forensic applications of the recovery and identification of human skeletal remains. Determination of age, sex, and ancestry. Also taphonomy, differentiating human from animal remains, analysis and significance of traumas, and search and recovery techniques. Offered spring only.

ANT 326 THE HUMAN FOSSIL RECORD

3, 3/0

Prerequisite: ANT 100. Human evolution as derived from the fossil record examination of major fossil hominid discoveries, their interpretation, and their place in the development of the human species. Offered spring even years.

ANT 327 INTRODUCTION TO MEDICAL ANTHROPOLOGY

3, 3/0

Prerequisite: ANT 101. An overview of the history and development of concepts and practices of medicine worldwide. Theories and procedures in illness, sickness, health and well-being in and from a variety of cultural perspectives, historical and contemporary, East and West. Stone Age, folk, shaman, traditional Western and herbal medicine, including healing and religion, homeopathy, and anthropological study of health-care institutions. Offered occasionally.

Equivalent Course: HEW 327

ANT 329 WORLD ARCHAEOLOGY

3, 3/0; GA23

Prerequisite: ANT 100 or Instructor permission. A broad outline of global hominin/human material culture through space and time from the origins of stone tools (2.5 million years ago) through to the rise of complex societies with monumental architecture approximately 1550 CE/AD as inferred from the archaeological record. Past cultures of hunter-gatherers-fishers, the first farmers, and early civilizations. Methods and theories that archaeologists use to interpret recovered archaeological data in a wide variety of forms. Offered every other spring semester, odd years.

ANT 330 INDIGENOUS HAWAIIANS

3, 3/0; DI23, GA23

Prerequisites: ANT 100 or ANT 101 or Instructor permission. Lifeways of the original inhabitants of the Islands of Oceania/Polynesia, especially the Hawaiian archipelago. Origins, geography/ecology, cultural identity and agency, political struggles from the 10th century to today of Indigenous Hawaiian peoples using archaeological/anthropological, historical documents, and oral tradition evidence (Ethnohistory). Representations of Indigenous Hawaiians originating inside and outside the region. Offered every other spring.

ANT 332 GENDER AND ARCHAEOLOGY

3, 3/0

Prerequisites: ANT 100 or instructor permission. Gender, sex, cultural construction of gender roles, alternative genders, impact of gender roles on social structure, and reflection of gender and gender roles on the material culture of past human societies. Archaeological evidence of gender including art, iconography, burial patterns, human remains, settlement patterns, architecture, and craft production.

ANT 335 ETHNOPRIMATOLOGY

3, 3/0

Prerequisites: ANT 100 or instructor permission. The study of interactions between humans and nonhuman primates. Focus on the hunting of nonhuman primates for food; the keeping of nonhuman primates as pets; the inclusion of nonhuman primates into myths,

oral histories, and religion; and the competition between humans and nonhuman primates for habitat and food. Offered every other year.

ANT 340 WOMEN IN ANTHROPOLOGICAL PERSPECTIVE

3, 3/0

Prerequisite: ANT 101. The study of women's position with attention to political, social, and cultural influences on female status in a cross-cultural perspective. Offered occasionally.

ANT 341 INDIGENOUS ART OF NORTH AMERICA

3, 3/0; DI23, GA23

Prerequisites: ANT 100 or instructor permission. Examination of art and material culture within Indigenous communities. How material culture and art can be used as evidence for human behavior, especially ritual behavior. Historical factors affecting the production and use of material culture and art will be investigated. Continuity and change within material culture/artistic repertoires. Offered every other spring, even years.

ANT 344 FOLKLORE & FANTASY IN POPULAR CULTURE: FROM MIDDLE-EARTH TO HOGWARTS

3, 3/0

Prerequisites: CWP 102 or equivalent, upper class standing. How J. R. R. Tolkien, the creator of modern fantasy writing, based his mythology for England on the work of 18th and 19th century folklorists. Influence of the work of myth scholars, primarily Joseph Campbell, on George Lucas and other film makers in the Star Wars trilogies and similar films and television series. Creation of folk groups (fandoms) based on fantasy novels and films, especially since the rise of the Internet. Offered occasionally.

ANT 350 GLOBAL MARRIAGE PRACTICES

3, 3/0; SS23

Prerequisites: Upper division status. Ethnography of marriage, kinship, household, and family. Analysis from premodern to modern family types, transformation in gender roles, empowerment of women, and dissolution of traditional kinship structures and emergence of new family forms. Consideration of legal and religious frameworks and their transformation from comparative perspectives. Offered every other year.

ANT 357 BLACKS IN TECHNOLOGY: INNOVATING THE FUTURE

3, 3/0

Prerequisite: AAS 100. Equips students with technical competency in ground-breaking tech and critical understanding of tech segregation that disproportionately affects Black people. Offered fall semester.

ANT 361 ANTHROPOLOGY OF FOOD

3, 3/0; GA23

Prerequisite: ANT 101 or instructor permission. Anthropology of food; production, distribution, and consumption of food in a range of cultures and contexts; food as cultural heritage; Organization of labor, Scales of production from local gardens through industrialization; Memory and politics of food and its distribution from a global standpoint. Offered occasionally.

ANT 362 URBAN FOLKLORE

3, 3/0

Folklore in the urban environment. The role of folklore in the creation and preservation of ethnic, occupational and community identity. Folklore in the media and popular culture. Offered occasionally.

ANT 365 PRACTICING ANTHROPOLOGY

3, 3/0

Prerequisite: ANT 101. The application of anthropology and anthropological perspectives to contemporary community and world issues and problems. Focus on the practice of anthropology as a career outside academia, in social services, international relations, government positions, community organizing, etc. The relevance of anthropological principles in day-to-day life. Offered occasionally.

ANT 367 CULTURE AND ECOLOGY

3, 3/0

Prerequisite: ANT 101. Overview of the anthropological study of culture and ecology-environmental anthropology-the evolutionary and comparative study of various cultures' relations, both biological and cultural, to their environments. Industrial and nonindustrial adaptations to and understandings of the environment. Human-to-nature relations, the study of place, and environmentalism. Offered occasionally.

ANT 370 THE ANTHROPOLOGY OF CONTEMPORARY ISSUES

3, 3/0

Prerequisite: ANT 101. An anthropological perspective of some of the principal dilemmas of the contemporary world, including technological, demographic, ideological, and cultural problems, which provide much of the content of our daily news and have implications for the survival of our species. Offered occasionally.

ANT 373 "SAVING" AFRICA

3, 3/0

Prerequisite: AAS 100, or upper division standing, or permission of instructor. Examines what Western efforts at foreign development, including contemporary globalization, look like from an African vantage. Incorporates ethnographic case studies, theoretical lenses, and practical implications for doing development work into the examination. Offered every fall semester.

ANT 377 POWER AND INEQUALITY: CIVILIZATION IN THE ANCIENT WORLD

3, 3/0; GA23

Prerequisite: ANT 100. Examination of the nature of early civilizations; possible factors involved in both their rise and fall. Old World civilizations studied: Mesopotamia, Egypt, the Indus Valley, China, the Aegean Islands, and Europe (Greece and Italy). New World civilizations examined: Mesoamerica and the Andes region of South America. Similarities and differences considered. Offered fall, even years.

ANT 380 LANGUAGE AND CULTURE

3, 3/0

Prerequisite: ANT 101. Concepts of language and culture as symbolic systems. Introduction to phonetics, phonemics, morphemics, syntax, and semantics from a cross-cultural and cross-lingual perspective. Exploration of the relationship between grammatical structure and modes of perception and cognition as related to world views and systems of values, with special emphasis on the Sapir-Whorf hypothesis and the work of Chomsky. Offered occasionally.

ANT 381 RELIGION, MAGIC, AND CULTURE

3, 3/0

Prerequisite: ANT 101. Descriptions and analysis of world religious beliefs and practices, universal phenomena with many manifestations. Examination of the place of religion and spirituality in widely diverse cultures, including discussion of magic, trance, altered states, cults, Wicca, Santeria, voodoo, and late-twentieth-century religions. Offered occasionally.

ANT 383 ETHNOGRAPHY OF TURKEY

3, 3/0

Prerequisites: Junior or senior standing. The transition to the Republic through the collapse of the Ottoman Empire and the nationalist movement which fought the War of Independence. Modernization, secularization, and westernization policies and the creation of a secular and laicist state. Mass rural-urban migration, struggles over Islamist movements, and nationalism through ethnographies.

ANT 385 VISUAL ANTHROPOLOGY

3, 3/0; SS23

Prerequisites: ANT 101 or SOC 100. How technology of the still camera transformed relationship to imagery, perception of time and movement through splitting and flattening of representations into "realistic" images. Basics of still cameras as a research tool; how to collect informants' images as data. Meaning, use of images, representations, and power of visual data. Offered fall odd years.

ANT 388 FOLKLORE & AMERICAN ROOTS MUSIC

3, 3/0

Prerequisites: CWP 102 and upper class standing. The richness and diversity of American roots music, with emphasis on the relationship of roots music to folklore and popular culture. Ways in which mediated a transmission and technology have contributed to the development of and dissemination of roots music. Offered occasionally.

ANT 389 TOPICS IN ANTHROPOLOGY

3, 3/0

Analysis of current areas of research interest in anthropology. Emphasis on using concepts and methods from the subfields of anthropology to study a specific problem or series of problems. Offered every semester.

ANT 400 ANCIENT MATERIALS

3, 3/0

Prerequisite: ANT 329 or ANT 312. The study of technology and production in its broadest sense. Raw materials used to create material culture as defined archaeologically, such as stone, bone, wood, clay, and metal. Datasets from ethnographic and

archaeological films and reports; hands-on experimental archaeology projects. How archaeologists use material culture as evidence for past human behavior, e.g., measurement of lithic flakes, creating typologies of ceramic shards. Offered spring even years.

ANT 405 HISTORY OF ANTHROPOLOGICAL THOUGHT

3, 3/0

Prerequisite: ANT 101. Important contributions in the development of anthropological theory to the present. Includes theories of Boas, Kroeber, Lévi-Strauss, Malinowski, and Tylor. Offered occasionally.

ANT 412 SEMINAR IN CULTURAL ANTHROPOLOGY

3, 3/0

Prerequisite: ANT 101. The concept of culture and ethnographic research. Value of cultural anthropology and ethnographic research and their relevance to problems faced by people today. Intellectual, social, and political trends that have shaped the development of the field of cultural anthropology. Cultural anthropological theory, research design, research practice. Offered fall only.

ANT 415 SEMINAR IN ARCHAEOLOGY

3, 3/0; IN23, RE23

Prerequisites: ANT 329 or ANT 312. Value of archaeology and its relevance to the problems faced by people today. Benefits from archaeology and how they are achieved. Intellectual, social, and political trends that have shaped the development of the field of archaeology. Archaeological theory and research design in depth. Negotiating between the different stakeholders in archaeological projects. Oral and written communication of archaeological findings. Offered spring only.

ANT 418 SEMINAR IN BIOLOGICAL ANTHROPOLOGY

3, 3/0; IN23, RE23

Prerequisites: CWP 102, ANT 100; ANT 321 or ANT 323 or ANT 326. Value of biological anthropology and its relevance to the problems faced by people today. Benefits from biological anthropology and how they are achieved. Intellectual, social, and political trends that have shaped the development of the field of biological anthropology. Biological anthropology theory and research design in depth. Negotiating between the different stakeholders in biological anthropology projects. Written communication of biological anthropological findings. Offered fall only.

ANT 488 INTERNSHIP IN ANTHROPOLOGY

1-12, 0/0

Supervised fieldwork in community agencies, organizations, and milieus where students develop and apply practical and anthropological knowledge and skills. Students interact in diverse cultural settings, and experience and establish connections of potential use in the job market. Preparatory conferences, ongoing seminars with the faculty supervisor, a log/journal of the field experience, and a final report. Offered spring only.

ANT 495 SPECIAL PROJECT

1-3, 0/0

Special project in Anthropology.

ANT 498 HONORS RESEARCH

3, 0/0

Prerequisites: 3.5 Cumulative GPA, Majors/Minors Only. Offered every semester.

ANT 499 INDEPENDENT STUDY

3-9, 0/0

Offered every semester.

In-depth examination of rapidly and significantly changing disciplinary issues, topics, or practices; offered occasionally.

Art and Design (AAD, ADE, ATS, DES, DMP, FAR, IDE)

Art and Design (AAD)

AAD 100 INTRODUCTION TO THE VISUAL ARTS

3, 1/5; AR23

The critical basis of procedures and concepts in the visual arts. Introductory problems in studio performance. Topics include artistic purposes, process and content; various media used by artists; the fundamental formal elements and principles of visual art. Lecture and studio experience. Offered annually.

AAD 101 DRAWING I

3, 2/4

Fundamentals of drawing based primarily on the study and representation of objects and natural forms; problems of analysis, composition and structure in various media; emphasis on creativity and concept development. The course will involve both lecture and studio experiences. Offered every semester.

Equivalent Course: FAR 101

AAD 102 INTRODUCTION TO TWO-DIMENSIONAL DESIGN

3, 1/5

Introductory course exploring the fundamental elements and principles of two-dimensional design. Technical, compositional, and creative problem-solving skill development through hands-on exploration of various two-dimensional media with an emphasis on creative design and concept development. Offered every semester.

AAD 103 INTRODUCTION TO THREE-DIMENSIONAL DESIGN

3, 2/4

Introductory course exploring the visual, analytical, and spatial considerations of three-dimensional design. Creative problem-solving, compositional, and technical skill development through hands-on investigation of various three-dimensional materials emphasizing creative expression and concept development. Offered every semester.

AAD 104 DIGITAL PRESENTATION METHODS

3, 2/4

Fundamentals of digital presentation techniques, vector and pixel graphics, desktop publishing, video production, and website design tools augmented by basic research methods, and digital file management. Application of these tools to creative projects. Offered every Fall semester.

Equivalent Course: IDE 103

AAD 105 INTRODUCTION TO DIGITAL DESIGN AND FABRICATION

3, 2/0

Digital fabrication application of vector graphics, pixel graphics, and computer aided three-dimensional modeling for digital fabrication processes, including 3D printing, and laser cutting with an emphasis on creative design and concept development. Offered every semester.

AAD 150 THEMES AND ISSUES IN THE CONTEMPORARY ARTS

3, 3/0

Introduction to important figures, movements, and concepts in recent art, architecture, and design. Develops students' abilities to analyze works of art and to think critically about the role of art and the artist/designer in society. Offered every semester.

AAD 189 TOPICS COURSE

3, 3/0

Special topics. Offered occasionally.

AAD 190 ART AND DESIGN SYMPOSIUM

3, 3/0

An introductory art and design course open only to non-majors. The students learn about the basic concepts and language of art and design; the application of those concepts in the human environment; and historical and cultural references to those concepts. Offered every semester

Equivalent Course: DES 190

AAD 251 ART HISTORY: FROM PREHISTORY TO MEDIEVAL PERIOD

3, 3/0; AR23

World history of painting, sculpture, architecture, and related arts from the Paleolithic period to the end of the medieval period. Offered every semester.

AAD 252 ART HISTORY: FROM THE RENAISSANCE TO THE MODERN WORLD

3, 3/0; AR23

World history of painting, sculpture, architecture, and related arts from the thirteenth to the twentieth centuries. Offered every semester.

AAD 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

AAD 315 ARTS IN LIVING

3, 2/2

Contemporary and historic art forms as they apply to everyday living. Discussion and analysis of the individual significance and interrelatedness of architecture, industrial design, the graphic arts, painting, sculpture, music, and theater arts in the context of the history of Western civilization. Participation in creative activities related to the course. Offered every semester.

Equivalent Course: AED 315

AAD 389 TOPICS COURSE

3, 3/0

Special topics. Offered occasionally.

AAD 470 SENIOR SEMINAR

3, 3/0

Prerequisites: Senior status, Art and Design majors only. Final evaluative process regarded as a culminating experience in the program. Discussions and lectures in major areas. Theory and significance of selected problems. Critical analysis of the student's work resulting in the preparation of a professional portfolio. Offered every semester.

Equivalent Course: FAR 470

AAD 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: upper-division status. Project undertaken and meeting hours arranged individually with instructor. Offered occasionally.

AAD 499 INDEPENDENT STUDY

3-12, 0/0

Art Education (AED)

AED 200 FUNDAMENTALS OF ART INQUIRY

3, 3/0

Establishes the individual student's critical framework for looking at works of art and develops his or her knowledge and understanding of contemporary art. This is achieved by studying the application of the elements of art and principles of composition, discussions about artists and their work, and visiting art museums. Offered every semester.

AED 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

AED 300 FOUNDATIONS IN ART EDUCATION

3, 2/2; IN23, RE23

Prerequisites: Art education major or department chair permission and successful completion of English composition/basic communication and mathematics skills competency requirements. A writing-intensive introductory course that integrates instructional planning, learning theories, and teaching practices with the visual arts in education and society. Required for education majors. Offered every semester.

AED 301 THEORETICAL CONSTRUCTS IN ART EDUCATION

3, 2/2

Prerequisites: Art education major, AED 300W, or department chair permission, and one course in psychology. AED 301 is a writing intensive course that examines traditional and contemporary theories and practices relevant to current art education environments, learners, and communities and is required for art education majors. Required for art education majors. Offered every semester.

AED 302 FUNCTIONS AND PRACTICE IN ART EDUCATION

3, 2/2

Prerequisites: Art education major, AED 300 and AED 301. Studies of contemporary theories, functions, and practices in the visual arts including context, content, and processes necessary in the design of instructional planning, implementation, and evaluation of visual art teaching. Practicum experiences in local educational settings. Required for art education majors. Offered every semester.

AED 303 ELEMENTARY STUDENT TEACHING IN ART

6, 0/0

Prerequisites: Art education major, AED 302, ATS 325, satisfaction of departmental requirements, and approval of AED coordinator of student teaching. Students are assigned to a supervised elementary teaching placement for five full days a week for approximately seven consecutive weeks. Students are required to effectively demonstrate content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflective practice. Offered every semester.

AED 304 SECONDARY STUDENT TEACHING IN ART

6, 0/0

Prerequisites: Art education major, AED 302, ATS 325, satisfaction of departmental requirements, and approval of AED coordinator of student teaching. Students are assigned to a supervised secondary teaching placement for five full days a week for approximately seven consecutive weeks. Students are required to effectively demonstrate content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflective practice. Offered every semester.

AED 310 ART MEDIA AND METHODS EXPLORATION

3, 2/2

Prerequisites: For ATS minors: ATS 320 and one visual arts studio course, or instructor permission; for AED majors: Junior or senior status, or instructor permission. Development of practical skill and knowledge in art media, methods, and resources for educational and/or therapeutic purposes. Hands-on exploration of culturally diverse traditional and nontraditional art tools and materials that are appropriate for school and community settings; media analysis for application to promoting developmental and/or therapeutic goals. Offered occasionally.

AED 315 ARTS IN LIVING

3, 2/2; GA23

Contemporary and historic art forms as they apply to everyday living. Discussion and analysis of the individual significance and interrelatedness of architecture, industrial design, the graphic arts, painting, sculpture, music, and theater arts in the context of the history of Western civilization. Participation in creative activities related to the course. Offered every semester.

Equivalent Course: AAD 315

AED 319 ART FOR ELEMENTARY AND EXCEPTIONAL EDUCATION TEACHERS

3, 2/2

Prerequisites: education major, art therapy minor, or instructor permission. Foundational knowledge of children's development in relation to art pre-K through middle school; theories and approaches to provision of art experiences in non-arts classrooms including arts integration and cross-curricular connections; introductory skills in art media and processes. Offered annually.

AED 335 INCLUSIVE ART CLASSROOMS

3, 3/0; DI23

Prerequisite: Art education major or instructor permission. Examine the role of the art teacher in a culturally diverse world with students who have various disabilities. 20 hours of supervised fieldwork in approved settings that serve diverse children with varying learning needs. Offered every spring.

AED 365 SEMINAR IN FEMINIST ART AND CRITICISM

3, 3/0

Prerequisites: Fulfillment of English composition/basic communication requirement and sophomore status. Women's creative achievements in visual art. Varieties of feminist visual art and criticism and their relationship to contemporary culture. Portrayal of women and the ways in which cultural definitions of gender shape artistic expression. Offered occasionally.

AED 389 TOPIC COURSE

0, 0/0

The course content is flexible and will provide opportunities for greater depth of knowledge in relevant topics related to the field of art education.

AED 398 ART, SOCIETY AND NEW MEDIA TECHNOLOGIES FOR ART EDUCATORS

3, 2/2

Prerequisites: Art education major. Critical examination and uses of new media technologies in art education within socio-cultural contexts. Pedagogical tools for teaching media technologies to children and youth (pre-K through 12th grade). Offered every semester.

AED 400 STUDENT TEACHING SEMINAR

3, 3/0

Relationship of art education theories to teaching practices used in the contemporary school art program. Crucial issues in art education. Problems of beginning art teachers. The value of current professional literature in the resolution of issues and problems. Required for art education majors. To be taken concurrently with or immediately following student teaching. Offered every semester.

AED 488 INTERNSHIP

1-12, 0/0

Prerequisites: Upper-division status and/or permission of instructor, minimum cumulative GPA of 2.5, and background coursework appropriate to the internship setting. Guided, supervised field experiences for qualified students in community-based agencies or settings. Interns apply and enhance knowledge gained through formal instruction demonstrating operational skills as practitioners in prospective specializations. Offered occasionally.

AED 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Upper-division status. Project undertaken and meeting hours arranged individually with instructor. Offered occasionally.

AED 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisites: Sophomore, junior, or senior status and minimum cumulative GPA of 2.5 (overall, previous semester, and in major courses). Studies arranged and meeting hours undertaken individually with instructor. Offered occasionally.

Art Therapy Studies (ATS)

ATS 320 INTRODUCTION TO ART AND THERAPY

3, 3/0

Prerequisites: PSY 101 and one additional approved human service course by advisement. Introduction to the theory and practice of art therapy. Exploration of art as a means of assessment and treatment for child, teen, and adult populations in various therapeutic settings such as hospitals, mental health clinics, nursing homes, and developmental centers. Clinical case material presentations and exploration of personal creative processes. Offered every semester.

ATS 325 ART FOR CHILDREN WITH DISABILITIES

3, 2/0

Prerequisites: FOR For ATS MINORS: ATS 320 and one approved human service course, or permission of the instructor; FOR AED MAJORS: 3.0 GPA in AED major, and completion of AED 301 or permission of instructor. Examining the role of art as it relates to the development of children with disabilities. Emphasis on differentiated instruction, therapeutic teaching, roles of the art educator and the art therapist, and cultural competence. 20 hours of supervised fieldwork. Offered every spring.

Design (DES)

DES 114 WORKSHOP IN CRAFTS

3, 1/5

Hands-on creative studio experience in either ceramics, fibers, metals/jewelry, or wood/furniture design. Non-art majors only. Offered every semester.

DES 189 TOPIC COURSE

1-9, 0/0

Topics in art and design studio or history. Offered occasionally.

DES 190 DESIGN SYMPOSIUM

3, 3/0; AR23

Introductory design course open only to non-majors. Basic concepts and language of design, the application of those concepts in the human environment, and the historical and cultural reference to those concepts. Offered every semester.

Equivalent Course: AAD 190

DES 215 INTRODUCTION TO DESIGN HISTORY

3, 3/0

General introduction to design history and criticism, tracing the evolution of form and meaning from primitive cultures through the contemporary world. Special emphasis on the Industrial Revolution and modern and postmodern culture.

DES 220 CERAMICS I

3, 1/5

Exploration of clay as a medium of expression. Experiences in methods of forming, application of glaze, and firing theory. Study of form and function. Offered every semester

DES 230 INTRODUCTION TO JEWELRY MAKING

3, 1/5

Exploration of materials and processes in jewelry making, emphasizing creative design. Offered every semester.

Equivalent Course: DES 230

DES 242 FIBERS I

3, 1/5

Introduction to traditional and current trends in weaving and surface design, including table-loom weaving, dyeing, and silkscreen printing. Assignments develop good design through creative expression. Offered every semester.

DES 250 WOOD DESIGN I

3, 1/5

Wood as a medium for expression and object design; technical and aesthetic problems. Offered every semester.

Equivalent Course: DES 250

DES 270 VISUAL COMMUNICATION I

3, 1/5

Prerequisite: DES 277 or AAD 104. Introductory course in communication design involving basic design problems including logotype, stationary, and page layout. Examination of design and printing processes, as well as professional practices and issues. Offered every semester.

Equivalent Course: DES 270

DES 271 LETTERING AND TYPOGRAPHY I

3, 1/5

Prerequisite: DES 277 or AAD 104. Uses of typographic forms in graphic design; problems in expression and appropriate application and layout; type specification, indication, copy fitting; origins of the Western alphabet. Offered every semester.

DES 277 COMPUTER GRAPHICS I

3, 1/5

Introduction to the Macintosh computer as a graphic design tool. Develop a working understanding of a graphic design page-layout and drawing program. Class sessions include visual presentations, hands-on tutorials, and critiques of assignments. Offered spring semester.

DES 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

DES 307 COLOR THEORY

3, 1/5

Prerequisite: AAD 101. Origins, meaning, and dimensions of color; lectures and studio problems in various media, exploring the compositional effects of color. Offered every semester.

Equivalent Course: DES 307

DES 312 HISTORY OF CRAFT: INDUSTRIAL REVOLUTION TO THE PRESENT

3, 3/0

Prerequisite: AAD 150. Historical and theoretical foundations of crafts from the Industrial Revolution to the present. Developments in crafts in traditional forms, hand-based production methods, new technologies, new media and new concepts of craft, and specific cultural and intellectual contexts. Offered fall only.

DES 314 HISTORY OF GRAPHIC DESIGN: INDUSTRIAL REVOLUTION TO THE PRESENT

3, 3/0

Prerequisite: AAD 150 or permission of instructor. Examination of the history and theoretical foundations of graphic design from the Industrial Revolution to the present. Developments in graphic design are considered in relation to new technologies and new media and to specific cultural and intellectual contexts. Offered spring only.

DES 317 DESIGN IN THE TWENTIETH CENTURY

3, 3/0

Prerequisite: DES 215 or AAD 150 or permission of instructor. Historical and theoretical foundations of design in the twentieth century, concentrating on developments in graphic, industrial, and craft design from the 1890s to the present, and emphasizing the unique conditions of the present century with respect to new technology and new media.

DES 320 CERAMICS II

3, 1/5

Prerequisite: DES 220. Exploration of ceramic form, glaze, and firing methods through assigned problems and individual interests. Lecture and laboratory in glaze materials and glaze design. Course may be repeated up to six credits. Offered every semester.

Equivalent Course: DES 320

DES 321 CERAMICS: JUNIOR STUDIO

3-12, 1/5

Prerequisite: DES 320. Advanced study and experience in the total ceramic process through assigned problems according to individual personal interests. Course may be repeated up to six credits. Offered every semester.

DES 329 ENAMELING FOR JEWELRY

3, 1/5

Prerequisite: DES 230. Exploration of traditional and contemporary methods of enameling for jewelry design. Offered occasionally.

DES 330 APPLIED JEWELRY TECHNIQUES

3, 1/5

Prerequisite: DES 230. Basic and advanced jewelry techniques including lost-wax casting and stone setting. Continued emphasis on the personal, conceptual, and creative development of jewelry design. Offered every semester.

Equivalent Course: DES 330

DES 331 JEWELRY: JUNIOR STUDIO

3-12, 1/5

Prerequisite: DES 330. Advanced exploration of materials and processes used in jewelry making with emphasis on design aspects. Individually selected projects. Course may be repeated up to nine credits. Offered every semester.

Equivalent Course: DES 331

DES 336 METALSMITHING

3, 1/5

Prerequisite: DES 235 or DES 330. Advanced concentration in metalworking as a continuation of forming techniques introduced in DES 235. Offered spring only.

DES 337 METALSMITHING: JUNIOR STUDIO

3-12, 1/5

Prerequisite: DES 336. Practical application of metalworking techniques with emphasis on raising, forging, welding, riveting, casting, spinning, and other forming methods. Parallel study of leading designers, craftspeople. Tutorial relationship with instructor. Extra class assignments, including minimum studio hours equal to class hours. Offered spring only.

DES 338 COMPUTER THREE-DIMENSIONAL MODELING AND RENDERING

3, 1/5

Prerequisites: AAD 105. Exploration of the capabilities of computer modeling and rendering software, especially for craft area majors. Offered spring only.

DES 342 FIBERS II

3, 1/5

Prerequisite: DES 242. Intermediate exploration in traditional and experimental techniques of weaving and surface design, including floor-loom weaving, dyeing and silkscreen printing with an emphasis on creative expression. Offered every semester.

DES 344 FIBERS: JUNIOR STUDIO

3, 1/5

Prerequisite: DES 342. Study and experience in complex weaving and surface design, including multiple-harness weaving and application of dyeing, printing, and mixed media techniques; aesthetic and functional considerations. Course may be repeated up to six credits. Offered every semester.

DES 350 WOOD DESIGN II

3, 1/5

Prerequisite: DES 250. Exploration into the design and fabrication of wooden objects. Emphasis on developing design and craftsmanship skills through assigned problems. Offered every semester.

Equivalent Course: DES 350

DES 351 WOOD DESIGN: JUNIOR STUDIO

3-12, 1/5

Prerequisite: DES 350. Design and creation of a major project in wood, approached from the viewpoint of the designer-craftsperson, using a range of techniques and hand, power, and machine tools as needed. Course may be repeated up to six credits. Offered every semester.

Equivalent Course: DES 351

DES 370 VISUAL COMMUNICATIONS II

3, 1/5

Prerequisite: DES 270. Design problems in visual communication. Emphasis on creative problem solving and appropriate application to promotional and editorial communication.

DES 374 ADVERTISING DESIGN

3-6, 1/5

Prerequisite: DES 277 or AAD 104. Principles of advertising design as visual communication, motivation, and persuasion. Problems in advertising and publication design. Illustration, media, and techniques. Typographic design and reproduction processes. Offered fall semester.

DES 377 COMPUTER GRAPHICS II

3, 1/5

Prerequisite: DES 277 or AAD 104. Intermediate-level course using computer-imaging programs. Creative problem solving with photomontage, posters, and publication design assignments. Visual presentations, hands-on tutorials, and critiques of assignments. Offered every semester.

Equivalent Course: DES 478

DES 378 WEB DESIGN 1

3, 2/4

Prerequisite: DES 277 or AAD 104. Introduction to interactive Web design from the perspective of communication design. Introduces the student to the history of the Internet, industry-standard site-creation, software, and testing and evaluation. Integrates design aesthetics information, organization, image preparation, and intuitive interface design and navigation. Offered fall semester.

DES 379 MOTION DESIGN

3, 3/0

Prerequisite: DES 277 or AAD 104. Exploration and integration of animation methods including hand-drawn, stop motion, and digital. Motion and sound added to graphics, typography and image. History of motion design and animation. Integrates design aesthetics, sequential information presentation, and video preparation for various distribution methods. Offered spring semester.

Equivalent Courses: DES 479, DMA 379

DES 380 ILLUSTRATION

3, 1/5

Prerequisite: DES 270. Creative problem solving illustration assignments. In-depth exploration of illustration media and techniques.

Examination of professional practice and business issues. Offered every semester.

DES 382 DIGITAL 3D 1

3, 2/0

Prerequisite: DES 277 or AAD 104. Creation of digital 3D objects and environments for print, video and motion design. Modeling, lighting and surfacing objects in the CG (Computer Graphics) environment using industry standard software.

Equivalent Course: DES 480

DES 389 TOPICS COURSE

3, 0/0

Offered occasionally.

DES 414 SENIOR SEMINAR/EXHIBITION

4, 3/3

A series of lectures and discussions concerning topics such as self-presentation concepts. Job and professional interviews. Business practices, recordkeeping, and taxes. Legal contracts and copyrights. Exhibitions and promoting personal work. Offered every semester.

DES 421 CERAMICS: SENIOR STUDIO

3-12, 1/5

Prerequisite: DES 321. Development and presentation of the student's personal direction in clay, culminating in a portfolio presentation and a final show. Course may be repeated up to twelve credits. Offered every semester.

DES 431 SENIOR JEWELRY STUDIO

3, 1/5

Prerequisites: DES 331, instructor permission. A focus on advanced conceptual and technical applications related to the design and fabrication of jewelry. Emphasis on the culmination of aesthetics and concept resulting in a distinct individual style. Offered every semester.

DES 444 FIBERS: SENIOR STUDIO

3, 1/5

Prerequisites: DES 344, instructor permission. Concentration of studio work in surface design, mixed media and weaving. Students plan and execute a series of problems and projects in consultation with the instructor, leading to an exhibition. Portfolio preparation for graduating seniors. Offered annually.

DES 451 WOOD DESIGN: SENIOR STUDIO

3-12, 1/5

Prerequisite: DES 351. Concentration of studio work by senior wood majors. Students plan and execute a series of problems and projects in consultation with the instructor. Course may be repeated up to twelve credits.

DES 472 WEB DESIGN II

3, 2/4

Prerequisites: Communication Design Major, Junior/Senior standing, DES 378. Intermediate concepts and skills involved in designing Internet-based interactive media. Builds on technical and theoretical concepts of DES 378, Web Design I. Current technical standards in web design and online publishing will be covered including multi-device interface design, content management, social media integration and accessibility.

DES 473 GRAPHIC DESIGN

3-9, 1/5

Prerequisites: DES 377 and DES 380. Advanced problems in advertising, publication, and packaging design. Materials, techniques, and computer processes used in preparation of visual and design presentations/mechanicals. Emphasis on individual solutions to problems typical of those confronting the professional graphic designer. Offered fall semester.

DES 475 GRAPHIC DESIGN PRACTICUM

1-6, 1/5

Prerequisite: Completion of all required courses in graphic design specialization. Practical experience in an advertising agency, design studio, or corporate design office under the sponsorship of an art director, working two days a week for 6 credit hours. Or experience with practical problems in a simulated agency situation, working 10 hours a week for 3 credit hours. Admission by permission of graphic design advisers after portfolio review. Offered every semester.

DES 478 WEB DESIGN II

3, 2/4

Equivalent Course: DES 377

DES 479 MULTIMEDIA COMPUTER DESIGN

3, 0/6

Prerequisite: DES 377. Introduction to computer design and the authoring process in multimedia. Experience with digital images, video, and sound using current software, culminating in creative interactive presentations and Web page documents. Offered every semester.

Equivalent Course: DES 379

DES 480 ILLUSTRATION II

3, 1/5

Prerequisite: DES 380. Advanced problems and creative solutions in editorial and advertising illustration using computer drawing software programs. In-depth examination of business issues and professional practice in the illustration field. Offered every semester.

Equivalent Course: DES 382

DES 488 INTERNSHIP

1-12, 0/0

Prerequisite: Senior Status, Art and Design Majors, and instructor permission. Guided, supervised exposure to professional design operations through on-the-job experience in an authorized design firm, department, studio, or showroom. For 3 credit hours, student completes 120 contract hours, provides a written report of the work experience, and receives written evaluation from the employer. Offered every semester.

DES 489 MOTION DESIGN 2

3, 2/0

Prerequisite: DES 379. Integrates type, graphics and image utilizing the language of motion, emphasizing story and ideation in time-based media. Real-world applications include title/credit sequences, product pre-visualization, interactive interfaces, advertising, and entertainment.

DES 495 SPECIAL PROJECT

1-3, 1/5

Offered occasionally.

DES 499 INDEPENDENT STUDY

3-12, 1/5

Offered every semester.

Digital Media Arts (DMA)

DMA 150 INTRODUCTION TO DIGITAL MEDIA

3, 3/0

Introductory survey to digital media authoring tools. Students gain basic skills for creating digital media works including manipulated imagery, video, animation, and interactive projects. Places an emphasis on learning the metaphors and concepts of digital authoring software in order to make self directed study more effective. Offered every semester.

Equivalent Course: ALT 150

DMA 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

DMA 379 MOTION DESIGN I

3, 3/0

Prerequisite: DES 277. Exploration and integration of animation methods including hand-drawn, stop motion, and digital. Motion and sound added to graphics, typography and image. History of motion design and animation. Integrates design aesthetics, sequential information presentation, and video preparation for various deployments, e.g. DVD, web/mobile and screen. Offered every semester.

Equivalent Course: DES 379

DMA 489 MOTION DESIGN II

3, 2/0

Prerequisite: DMA379 or DES 379. Integrates type, graphics and image utilizing the language of motion, emphasizing story and ideation in time-based media. Real-world applications include title/credit sequences, product pre-visualization, interactive interfaces, advertising, and entertainment.

Equivalent Course: DES 479

Fine Arts (FAR)

FAR 101 DRAWING I

3, 2/4

Fundamentals of drawing based primarily on the study and representation of objects and natural forms; problems of analysis, composition and structure in various media; emphasis on creativity and concept development. The course will involve both lecture and studio experiences. Offered every semester.

Equivalent Course: AAD 101

FAR 102 DRAWING II

3, 1/5

Prerequisite: AAD 101. Drawing the nude using various media with an emphasis on proportion, anatomy, and pictorial structure. Lecture and studio experience. Offered every semester.

FAR 103 MODELING

3, 1/5

Modeling as an introductory experience in the exploration of three-dimensional form. Development of perceptual and analytical attitudes. Lectures and modeled work dealing with the human figure. Offered every semester.

Equivalent Course: FAR 203

FAR 189 TOPICS COURSE

3-6, 3/0

Offered every semester.

FAR 203 MODELING

3, 1/5

Modeling as an introductory experience in the exploration of three-dimensional form. Development of perceptual and analytical attitudes. Lectures and modeled work dealing with the human figure. Offered every semester.

Equivalent Course: FAR 103

FAR 210 INTRODUCTORY PAINTING

3, 1/5

Prerequisite: AAD 101. Introduction to the methods, techniques, standards, and values of painting. Exploration of color, form, and compositional problems. Lecture and studio experiences. Offered every semester.

FAR 220 PHOTOGRAPHY I

3, 2/4

Introduction to photography as a medium of art and personal, social, and cultural storytelling. Course covers technical aspects of black-and-white film photography, darkroom practice, basic digital capture and editing, and image sequencing for meaning. Offered every semester.

FAR 230 INTRODUCTORY PRINTMAKING

3, 1/5

Prerequisite: AAD 101. Introduction to printmaking and its basic processes and techniques, involving demonstrations, lectures, and studio experiences in one or more areas such as intaglio, lithography, and relief. Offered every semester.

FAR 240 INTRODUCTORY SCULPTURE

3, 1/5

Prerequisite: AAD 101. The fundamentals of sculptural form. Additive, subtractive, and constructive approaches to sculpture through lecture and studio experiences. Offered every semester.

FAR 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

FAR 300 DRAWING III

3, 1/5

Prerequisite: FAR 102. Continuation of FAR 102, with emphasis on the human figure and its relationship to an environment and pictorial structure. Lecture and studio experience. Course may be repeated twice. Offered every semester.

FAR 311 INTERMEDIATE PAINTING I

3, 1/5

Prerequisite: FAR 210. Continuation of FAR 210, working toward a greater awareness of a personal statement. Lecture and studio experience. Offered every semester.

FAR 312 INTERMEDIATE PAINTING II

3, 1/5

Prerequisite: FAR 311. Continuation of FAR 210 and FAR 311, allowing opportunity for more thorough fundamental awareness at a more intense concentration. Lecture and studio experience. Offered every semester.

FAR 313 ADVANCED PAINTING

3-9, 1/5

Prerequisite: FAR 312. Advanced painting, with media, style, and content based on individual needs. Concentration on individually selected areas of painting. Lecture and studio experience. Course may be repeated three times. Offered every semester.

FAR 316 PAINTING IN SIENA

3, 1/5

Prerequisite: FAR 210 (for art credit); no prerequisite for non-art credit. Upper-level painting course, taught in Siena, Italy. Students work at their level of experience, in the materials and techniques available in Siena. Offered every semester.

FAR 321 INTERMEDIATE PHOTOGRAPHY I

3, 1/5

Prerequisite: FAR 220. An intermediate course in photography emphasizing the making of creative images. Intermediate 35mm camera technique and the use of on-camera electronic flash are taught. The basic Zone system is taught to improve exposure metering skills, to introduce controls for monitoring the development of film, and to familiarize students with contrast curves used in Photoshop. Includes lectures, equipment demonstrations, computer instruction, and fieldwork. Note: 35mm camera with built-in exposure meter, electronic flash, and tripod required. Offered every semester.

FAR 322 INTERMEDIATE PHOTOGRAPHY II

3, 1/5

Prerequisite: FAR 321. Intermediate use of computer, Photoshop, film scanning, ink jet printing, and color management to make creative pictures. Builds upon intermediate skills and introduces digital camera use for computer-based imagemaking in photography. Introduces large format ink jet printing. Includes lectures, equipment demonstrations, and fieldwork. Note: Digital camera (5 megapixel or better), 35mm camera, electronic flash, and tripod required. Offered every semester.

FAR 323 ADVANCED PHOTOGRAPHY

3-9, 1/5

Prerequisite: FAR 321. Devoted to creative work in photography and its integration with digital technology. Advanced camera skills are taught using medium-format and digital cameras. Advanced film exposure and lighting techniques are taught, as well as basic use

of Illustrator, Painter, and Poser software. A medium format camera (120/220 film size), tripod, hand-held exposure meter, on-camera and portable studio flash are required. An internship taken concurrently with the last semester of Advanced Photography is encouraged. Course may be repeated up to three times. Offered every semester.

FAR 325 HISTORY OF PHOTOGRAPHY

3, 3/0

The invention and development of photography from the early-nineteenth century to the present. Photography as art, science, communication, and influence upon social patterns and customs. Offered alternate years.

FAR 328 STUDIO PHOTOGRAPHY

3, 1/5

Prerequisite: FAR 220. Introduction to current studio practices used to produce still photographs for commercial and other uses. Medium-format camera, view camera, and studio-lighting techniques. Emphasis on directed and fabricated photographic images. Professional-quality camera, hand-held light meter, and tripod required. Offered occasionally.

FAR 331 INTERMEDIATE PRINTMAKING I

3, 1/5

Prerequisite: FAR 230. Continuation of FAR 230. Emphasis on personal expression and creative possibilities. Includes lecture, demonstrations, and studio experience. Offered every semester.

FAR 332 INTERMEDIATE PRINTMAKING II

3, 1/5

Prerequisite: FAR 331. Continued exploration of printmaking with emphasis on personal expression and creative possibilities. Includes lecture, demonstrations, and studio experience. Offered every semester.

FAR 333 ADVANCED PRINTMAKING

3-9, 1/5

Prerequisites: FAR 331 and FAR 332. Advanced printmaking. Media determined by the student in consultation with the instructor. Includes lecture and studio experiences. May be repeated three times. Offered every semester.

FAR 335 PAPERMAKING

3-9, 1/5

Prerequisite: One studio course in fine arts or design. The theory and practice of handmade papermaking involving demonstrations, lectures, and studio experience. Required for B.F.A. printmaking majors. Offered every semester.

FAR 341 INTERMEDIATE SCULPTURE I

3, 1/5

Prerequisite: FAR 240. Further exploration of sculptural form with more complete study of numerous sculptural approaches and techniques. Practice in planning and executing sculpture projects. Offered every semester.

FAR 342 INTERMEDIATE SCULPTURE II

3, 1/5

Prerequisite: FAR 341. Continuation of FAR 341 with further emphasis on exploration of variations within each technique and approach. Development of personal modes of expression. Offered every semester.

FAR 343 ADVANCED SCULPTURE

1-9, 1/5

Prerequisite: FAR 341 and FAR 342 or any 300-level art or design studio course with instructor permission. Concentration on individually selected areas of development in sculpture based on personal interest, needs, and experience. May be repeated three times. Offered every semester.

FAR 345 FIGURE MODELING

3, 1/5

Prerequisite: AAD 101 or FAR 101. Figure modeling as a basic sculptural discipline. Portrayal and interpretation of the human form. Anatomy lectures and work with live models. Offered alternate years.

FAR 346 SCULPTURE IN SIENA

3, 1/5

Prerequisite: FAR 240 (for art credit); no prerequisite for non-art credit. Upper-level course in sculpture taught in Siena, Italy. Students work at their level of experience, in the materials and techniques available in Siena. Offered every semester.

FAR 351 ART OF THE ANCIENT WORLD

3, 3/0

Prerequisite: Junior status or permission of instructor. Art of the Ancient World from earliest prehistory through the Roman era. Styles and regional variations in Greek, Near Eastern and Egyptian art within their cultural contexts. The Roman imprint on the civilizations of the Mediterranean and Near East and its multicultural effects.

FAR 352 ART AND CULTURE OF ISLAM

3, 3/0

Prerequisites: AAD 251 and AAD 252. The art of Islam in its cultural context, beginning in the seventh century A.D. and terminating in the twentieth century A.D. The development of Islamic art in relation to the Islamic system of life and belief and regional variations in Islamic art, both sacred and secular are explored throughout the eastern Mediterranean, the Medieval West and the Near East. Offered alternate years.

FAR 353 ART AND CULTURE OF EGYPT AND THE NEAR EAST

3, 3/0

Prerequisites: AAD 251 and AAD 252. The ancient art and culture of Egypt and the Near East from their beginnings in the Neolithic period circa ninth millennium B.C. through the Roman conquest. The cultural and environmental context of art in Egypt and the Near East with emphasis on the development of civilization in the fourth millennium B.C., on craft specialization, and on ethnic diversity resulting in regional styles in art. Offered alternate years.

FAR 354 ART AND CULTURE OF GREECE

3, 3/0

Prerequisites: AAD 251 and AAD 252. The history of art in the cultural and environmental context of Greece from its beginnings in the Neolithic period, ca. 6000 B.C. through the Roman Conquest (first century B.C.). The architecture, sculpture, painting, and minor arts of Greece studied in their cultural context. Offered alternated years.

FAR 355 ART AND CULTURE OF ROME

3, 3/0; IN23, RE23

Prerequisites: AAD 251 and AAD 252. The history of Roman art during its two main periods, the Republican period and the Roman Empire (circa third century B.C. through fourth century A.D.). Consideration of early influences on the art and culture of Latium, including the art of the Near East and culture of the Villanovans and Etruscans, and the art of Archaic, Classical, and Hellenistic Greece. Offered alternate years.

FAR 356 EARLY MEDIEVAL ART

3, 3/0

Prerequisites: AAD 251 and AAD 252. The art and culture of Europe, Byzantium, and the Near East in the context of the development of Christianity from its early roots through the early twelfth century A.D. Regional forms in art, including sacred and secular building construction, manuscript illumination, metalworking, enameling, and sculpture are examined with emphasis on historical context and religious and philosophical meaning. Offered alternated years.

FAR 357 LATE MEDIEVAL ART

3, 3/0

Prerequisites: AAD 251 and AAD 252. Architecture, sculpture, painting and the decorative arts of the period from ca. 1100 A.D. through the end of the fourteenth century A.D. The new aesthetic of Gothic in the context of philosophical and theological developments in Western Europe, the Crusades, and the growth of cities. Offered alternate years.

FAR 358 ITALIAN RENAISSANCE ART, 1200-1480

3, 3/0

Prerequisites: AAD 251 and AAD 252. Introduction to stylistic, technical and iconographical developments in Italian art and architecture, leading up to and including the Renaissance period, 1200-1400. Examination of the aspirations, achievements and disappointments of major artists within their historical, social and cultural contexts. Offered alternate years.

FAR 359 HIGH RENAISSANCE AND MANNERISM

3, 3/0

Prerequisites: AAD 251 and AAD 252. Introduction to stylistic changes and developments in Italian High Renaissance and Mannerist art. Examination of the aspirations, achievements and disappointments of major artists within their historical, social and cultural contexts. Offered alternate years.

FAR 361 ITALIAN BAROQUE ART

3, 3/0

Prerequisites: AAD 251 and AAD 252. Architecture, sculpture, and painting in Italy during the seventeenth and eighteenth centuries. Emphasis on key centers such as Rome, Venice, Turin, and Naples. Offered alternate years.

FAR 362 NINETEENTH-CENTURY ART

3, 3/0

Prerequisites: AAD 251 and AAD 252. Architecture from the neoclassicism of the Adam brothers to the skyscraper. Painting from David to Cézanne in France, the Nazarenes, and Pre-Raphaelites in Germany and England. Sculpture from Houdon and Canova to Rodin in relationship to the social, political, economic, and intellectual climate of the times. Offered fall only.

FAR 363 TWENTIETH-CENTURY ART HISTORY

3, 3/0

Prerequisites: AAD 251 and AAD 252. Major trends and works of the twentieth century. Emphasis on historical, artistic, judgmental, and cultural meanings as they reflect twentieth-century and past civilizations. Includes painting, sculpture, architecture, and other areas. Offered spring only.

FAR 364 ART SINCE 1940

3, 3/0

Prerequisites: AAD 251 and AAD 252. Introduction to art since 1940 within its historical, social, political, and cultural contexts. Offered alternate years.

FAR 365 AMERICAN ART I

3, 3/0

Prerequisites: AAD 251 and AAD 252. Architecture, painting, and sculpture in the United States from the seventeenth century to World War I. Offered alternate years.

FAR 366 AFRICAN AMERICAN ART

3, 3/0

Prerequisites: Prerequisites: AAD 251 and AAD 252. Survey of African American Art. Examines African American art as well as the relationship of art to politics and the formation of racial/cultural identity. Offered alternate years.

Equivalent Course: AAS 366

FAR 367 NORTHERN EUROPEAN ART 1600-1750

3, 3/0

Prerequisites: AAD 252 or instructor permission. Architecture, sculpture, and painting of the seventeenth and eighteenth centuries in Northern Europe. Emphasis on development in France, Holland, and Germany. Offered alternate years.

FAR 369 ART OF THE MIDDLE AGES

3, 3/0

Prerequisite: Junior status or permission of instructor. Art of the Middle Ages from the Early Christian period through the end of the Gothic period (ca. third century A.D. - fourteenth century A.D.). Reading, analysis, lecture and discussion of the styles, cultural contexts and regional variations in the medieval art of Europe, the Mediterranean, and the Near East. Offered alternate years.

FAR 371 ART CRITICISM AND THEORY

3, 3/0

Prerequisite: Junior status or permission of instructor. Modern and Post-Modern art criticism and theory in a historical context; reading, analysis, lecture, and discussion of selected texts pertaining to Formalism, Iconography and Semiotics, Modernism, Post-Modernism, Media and Communication, Gender, the "Other" and Institutional Critique. Offered alternate years.

FAR 372 MASTERWORKS OF ARCHITECTURE

3, 0/0

Introduction to masterworks of architecture, emphasizing architecture as a living organism. Buildings selected from various periods and cultures. Styles from early civilizations to the present day, including places of worship and interment, public and commercial structures, and private residences. Offered alternate years.

FAR 373 VENETIAN ART, CULTURE AND ENVIRONMENT

3, 3/0

Prerequisites: CWP 102 and AAD 252 or instructor permission. The history of Venetian architecture, sculpture, and painting considered within historical, geographical and cultural contexts from the fourteenth through the eighteenth century. Students will undertake original research and will carry out individual projects. Offered alternate years.

FAR 374 THE HISTORY OF COLLECTING AND THE MUSEUM

3, 3/0

Prerequisites: CWP 102 or instructor permission. Study of the history and theory of art collecting in Europe and America within historical, cultural and intellectual contexts. Examination of specific collectors and collections, cultural practices associated with collecting, methods of displaying art and approaches to viewing art. Offered alternate years.

FAR 375 ASIAN ART

3, 3/0

Prerequisites: AAD 252 or instructor permission. The principle concepts in the art of China, Japan, and India. The relevance of the philosophies of Hinduism, Buddhism, Jainism, Zen tradition, Taoism, and Confucianism to the development of Asian art. Brief histories of civilizations as frameworks for understanding aesthetic and philosophical Asian concepts. Offered alternate years.

FAR 376 INDIAN ART

3, 3/0

Prerequisites: AAD 251 and AAD 252; upper-division status. Introduction to the principal thoughts and concepts of the art of India and its relevance to the philosophies of Hinduism, Buddhism, and Jainism. Includes comparisons with Western art and a brief history of Indian civilization as a framework for the understanding of Indian aesthetic and philosophical concepts as presented in works of art. Offered alternate years.

FAR 377 ART OF CHINA AND JAPAN

3, 3/0

Prerequisites: AAD 251 and AAD 252; upper-division status. Introduction to the principal thoughts and concepts of Chinese and Japanese art and its relevance to the philosophies of Buddhism, Zen tradition, Taoism, and Confucianism. Includes comparisons with Western art and brief histories of Eastern civilizations as frameworks for the understanding of Eastern aesthetic and philosophical concepts as presented in works of art.

FAR 380 ART OF AFRICA

3, 3/0; IN23, RE23

The history of art in Africa from prehistory through the twentieth century. Arts from diverse regions of the continent are examined in their cultural context, with an emphasis on local and regional variations in style and iconography in the domestic, sacred, and royal arts. African responses to the development of slavery, imperialism, and other external stimuli are considered in relation to the use and trade of raw materials and the creation of new symbolic forms. Offered alternate years.

Equivalent Course: AAS 380

FAR 382 MODERN AND CONTEMPORARY RUSSIAN ART

3, 3/0

Prerequisites: AAD 251 and AAD 252. Survey of Modern and Contemporary Art in Russia. Examines modern art before the Soviet Revolution, the art and culture of the Soviet Union, and of the Post-Socialist era. Offered alternate years.

FAR 385 NORTHERN RENAISSANCE ART

3, 3/0

Prerequisites: AAD 251 and AAD 252. Survey of artistic developments in Flanders, Holland and Germanic Provinces between 1380 and 1580 within historical, political, religious and cultural contexts. Offered alternate years.

FAR 386 ART AND THE EARLY MODERN GLOBAL ENCOUNTER

3, 3/0

Prerequisites: CWP 102 or equivalent and AAD 252. Survey of Baroque art and architecture in Europe, Latin America, China, Japan and India between 1550 and 1805 within historical, political, religious and cultural contexts.

FAR 389 TOPICS COURSE

3, 0/0

Offered alternate years.

FAR 400 DRAWING IV

3, 1/5

Prerequisite: FAR 300. Advanced drawing with media and content based on individual needs. Concentration on individually selected area of development in drawing. Use of model. Lecture and studio experiences. Course may be repeated twice. Offered alternate years.

FAR 410 SENIOR STUDIO IN PAINTING

3-6, 1/5

Prerequisites: FAR 313, painting major, senior status. A 6 credit-hour concentration of studio work. Students plan and execute a series of problems and projects in consultation with major adviser. Offered every semester.

FAR 420 SENIOR STUDIO IN PHOTOGRAPHY

3-6, 1/5

Prerequisites: FAR 323, photography major, senior status. A 6 credit-hour concentration of studio work by the senior major in photography. Students outline, plan, and execute a complex and related series of pictures to be made during the semester, which result in a skillful, intelligent, and coherent body of work. Offered every semester.

FAR 430 SENIOR STUDIO IN PRINTMAKING

3-6, 1/5

Prerequisites: FAR 333, printmaking major, senior status. A 6 credit-hour concentration of studio work. Students plan and execute a series of problems and projects in consultation with major adviser. Offered every semester.

FAR 440 SENIOR STUDIO IN SCULPTURE

3-6, 1/5

Prerequisites: FAR 343, sculpture major, senior status. A 6-credit-hour concentration of studio work. Students plan and execute a series of problems and projects in consultation with major adviser. Offered every semester.

FAR 469 ART AND ARCHITECTURE IN SIENA

3, 0/0

Firsthand study of Gothic and Renaissance art in Siena, Italy. Includes classroom lectures and visits to the city's major monuments and collections. Offered every semester.

FAR 470 SENIOR SEMINAR

3, 3/0

Prerequisites: Senior status, Art and Design majors only. Final evaluative process regarded as a culminating experience in the program. Discussions and lectures in major areas. Theory and significance of selected problems. Critical analysis of the student's work resulting in the preparation of a professional portfolio. Offered every semester.

Equivalent Course: AAD 470

FAR 471 SENIOR SEMINAR IN ART HISTORY

3, 3/0

Prerequisites: Junior or Senior level art history major; or permission of instructor. Readings, discussions, and research on selected problems in the history of art from antiquity to the twentieth century. Emphasis on gathering and interpreting source material.

FAR 488 INTERNSHIP

1-15, 0/0

Prerequisites: Permission of faculty supervisor; minimum cumulative GPA of 2.0; background of courses or experiences within area of interest; permission of student adviser or major department chair and supervising faculty member and chair of credit-granting department. Guided, supervised field experiences (experiential learning). Offered every semester.

FAR 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

FAR 497 WORKSHOP

3, 0/0

Offered occasionally.

FAR 499 INDEPENDENT STUDY

3-12, 0/0

Offered every semester.

Interior Design (IDE)

IDE 101 INTRODUCTION TO INTERIOR DESIGN

3, 3/0; AR23

Introductory survey of the theory and practice of interior design. Emphasis is given to the impact of interior space upon the physical, social, psychological, and aesthetic needs of people. Offered fall only.

IDE 103 DIGITAL PRESENTATION METHODS

3, 2/4

Fundamentals of digital presentation techniques, vector and pixel graphics, desktop publishing, video production, and website design tools augmented by basic research methods, and digital file management. Application of these tools to creative projects. Offered every Fall semester.

Equivalent Course: AAD 104

IDE 104 SPATIAL CONCEPTS OF INTERIOR DESIGN

3, 1/4

Corequisites: IDE 101 and IDE103. Introduction to the elements and principles of space and form as the fundamental vocabulary for analyzing and communicating the spatial concepts of interior design. Offered every Fall.

IDE 151 MECHANICAL AND PERSPECTIVE DRAWING

3, 1/5

Prerequisites: IDE 101, IDE 103, IDE 104. Corequisites: IDE 152, IDE 153. Studio exploration of architectural drafting conventions and the methods to produce mechanically generated descriptive drawings, including orthographic, isometric, and perspective drawings. Skills are utilized in practical application and collaboration with the IDE 151 and IDE 153 studios. Offered spring only.

IDE 152 RAPID IDEATION AND VISUALIZATION

3, 1/5

Prerequisites: IDE 101, IDE 104. Corequisites: IDE 151. Introduction to interior design problem solving processes with a focus on rapid conceptual ideation, visualization, color rendering and project presentation. Offered every spring.

IDE 153 SPATIAL EXPLORATIONS AND MODEL BUILDING

3, 1/5

Prerequisites: IDE 101, IDE 103, IDE 104. Corequisites: IDE 151, IDE 152. A series of small experimental projects introduce, explore, and apply three-dimensional design elements and principles to the creation and representation of the built environment and interior design problems. Different media methods of building sketch, study, and scale models are introduced as tools for designing and producing spatial representations. Offered spring only.

IDE 155 FUNDAMENTAL SKILLS OF INTERIOR DESIGN

3, 2/0

Prerequisites: IDE151, IDE152, and IDE153 or, for transfer students, prior interior design course credit with portfolio review by advisement. Studio exploration of small projects in mechanical and perspective drawing, color marker rendering and rapid ideation, model making and spatial exploration, and digital presentation methods. Projects will reinforce elements and principles of interior design and design theory. Offered every summer.

IDE 189 TOPIC COURSE

1-3, 0/0

IDE 201 INTERIOR DESIGN I

3, 1/5

Prerequisites: IDE 151, IDE 152, IDE 153, successful completion of the skills competency exam and minimum cumulative GPA of 2.6. A series of small experimental projects explores how two-dimensional and three-dimensional design elements and principles are

applied specifically to interior design problems. Concept design, development, and articulation are emphasized and represented through the use of sketches, mechanical drawings, and perspective tools, as well as models. Skills and knowledge are utilized in practical application and collaboration with IDE 202. Offered fall only.

IDE 202 CONSTRUCTION FUNDAMENTALS

3, 3/0

Investigation of construction systems and materials used in the built environment including principles of structure and behavior, principles of enclosure and aesthetics, and exploration of building systems. Material properties affecting installation and appearance are presented and evaluated. Offered every fall.

IDE 203 FURNITURE THEORY AND APPLICATION

3, 3/0

Exploration of the furniture elements found within interior design; the interrelation of construction, strength of materials, and styles; and how modern-day furniture, theory, and applications have been influenced by and have evolved due to mass production, material development, and ergonomics.

IDE 204 BUILDING MATERIALS - SELECTION, SPECIFICATIONS, AND ESTIMATING

3, 1/4

Prerequisites: IDE 151. The study of a) interior finishes, materials, and various interior components; b) professional specification, code restrictions, and environmental concerns of materials that are required to choose an appropriate material; and c) understanding and creation of estimates and budgets for materials and products in a design project. Offered every spring.

IDE 205 HISTORY OF INTERIOR DESIGN AND ARCHITECTURE I

3, 3/0; GA23

A comprehensive survey of the major historical periods of architecture and interiors from antiquity to the advent of the Industrial Revolution.

IDE 206 EVIDENCE BASE DESIGN

3, 3/0

Introduction to the qualitative and quantitative research methods informing evidence-based interior design. Offered every Fall.
Equivalent Course: IDE 404

IDE 251 INTERIOR DESIGN II

3, 1/5

Prerequisite: IDE 201. Small- to medium-scale residential projects facilitate the exploration of functional criteria inherent in the design of interior spaces. Problem analysis, identification of client and user needs, selection of interior finishes and materials; a detailed, developed layout plus selection of furniture, fixtures, and equipment are emphasized. Offered spring only.

IDE 254 HISTORY OF INTERIOR DESIGN AND ARCHITECTURE II

3, 3/0

Prerequisites: IDE 205. A comprehensive survey of the major historical periods of architecture and interiors from the Industrial Revolution to the present. Offered spring only.

IDE 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

IDE 301 INTERIOR DESIGN III

3, 1/5

Prerequisite: IDE 251. Corequisite: IDE 303. Medium-scale design projects are used to explore the principles of retail design and merchandising, focusing on the translation of clearly stated program goals and objectives into unique spatial solutions. Offered fall only.

IDE 302 COMPUTER APPLICATIONS FOR INTERIOR DESIGN I

3, 1/4

Intermediate-level course. Integrates computer presentation software to augment concurrent Interior Design studio, professional practice, and stand-alone projects. Digital 3-D modeling and 2-D presentation tools, in conjunction with computer-aided design (CAD)

software, are used to translate students' fundamental manual presentation techniques to digital drawing, modeling, and layout. Offered fall only.

IDE 303 CONSTRUCTION DOCUMENTATION AND INTERIOR DETAILING

3, 2/4

Prerequisites: IDE 202. Understanding and creation of detailing and construction documentation of interior spaces. Interior designs are taken from concept to construction via micro-design projects. Emphasis is on the exploration and marriage of materials, construction techniques, prototype modeling and drawing conventions as professional communication tools. Material interfaces and transitions are designed, lighting is integrated, notes, reference marks and key tag conventions are implemented and professional construction document project sets are completed. Offered every fall semester

IDE 306 COLOR AND LIGHT

3, 3/0

Prerequisite: IDE 101. The study of a) physical properties of light and color in relation to elements and principles of design, b) physiological effects of light, c) elements of natural and artificial light, luminaire and control systems, d) color principles, theories, and systems to aid selection and application of color in the interior environment. Offered every fall

IDE 351 INTERIOR DESIGN IV

3, 1/5

Prerequisite: IDE 301. Information-gathering research and analysis is the basis to solve the functional and spatial requirements of complex public buildings, such as museums, libraries, health-care facilities, and cinemas. Special emphasis is placed on adjacencies, circulation, articulation, and the shaping of space. Offered spring only.

IDE 352 COMPUTER APPLICATIONS FOR INTERIOR DESIGN II

3, 1/4

Advanced topics of instruction in Computer Aided Architectural Drafting. Instruction focuses on creation and manipulation of the three-dimensional virtual built environment; including lighting and rendering techniques to create presentation-level graphics. The course also presents an introduction to Building Information Modeling (BIM) software. Offered spring only.

IDE 354 GLOBAL DESIGN STUDY TOUR

3, 1/5

Prerequisites: open for visual arts sophomores, juniors, and seniors with a cumulative GPA of 2.5 or better, instructor permission required. The Global Design Study Tour provides an opportunity to travel and experience a wide range of different cultural and geographical settings and their impact on interior design, art and architecture. Students will study exemplary global designs with an awareness and respect for cultural and social diversity. Offered occasionally.

IDE 355 LIGHTING DESIGN

3, 1/5

Designing with light, illumination principles, design criteria, specifications, and systems applied to public and private interiors. Hands-on experience using a lighting lab, case studies, and 3-D projects reinforce lecture material in a studio setting. Offered spring only.

IDE 356 ADVANCED PARAMETRIC DESIGN

3, 2/0

Prerequisites: IDE 352. Theory and application of visual programming as expression of parameters and rules that together define, encode and clarify the relationship between design intent and design response with a focus on the creation and communication of interior architectural environments. Offered every spring semester.

IDE 357 AMERICAN DIVERSITY AND DESIGN

3, 3/0

Prerequisites: Instructor Permission. Survey how design has affected and been affected by diverse populations in the U.S., specifically including race, ethnicity, gender, class, age, physical ability, cognitive ability, and religion. Examination of physical and media environments by and about diverse U.S. individuals and groups. Inclusive design principles are presented as an analytical framework. Offered spring only.

IDE 389 TOPICS COURSE

1-3, 1/0

IDE 401 INTERIOR DESIGN V

3, 3/15

Prerequisite: IDE 351. Large-scale office planning design projects are used to explore the functional and aesthetic requirements of complex administrative buildings. Anthropometric requirements; physical, sociological, and psychological needs; and the research, analysis, and programming skills needed for designing interior work-spheres are emphasized. Offered fall only.

IDE 403 PROFESSIONAL PRACTICE

3, 3/0

Introduction to the business principles, practices and ethics of the Interior Design profession. Emphasis is placed on regional standards, codes, means, methods, organizational charts, and client interaction. Résumé and portfolio creation, preparation for internship, and job interviews, business development and marketing material creation.

IDE 404 INTERIOR DESIGN THESIS RESEARCH

3, 3/0

Prerequisites: IDE 401. Part one of the thesis project, students advance their research and design skills required to meet a complex design project. Selection of the client, site, in-depth precedent study, code and building analysis, evidence based design, and research writing, design research methods are key issues addressed in this course. Offered annually.

Equivalent Course: IDE 206

IDE 451 INTERIOR DESIGN VI THESIS STUDIO

3, 1/5

Prerequisite: IDE 401. Constitutes the final studio experience prior to graduation and features one major design project. Students focus their design initiative with increased objectivity and adopt a comprehensive approach to the interior design process utilizing proposal, research, schematic design, construction documentation, material selections, specifications, technical writing, and presentation. Offered spring only.

IDE 483 BSC LED STUDY AWAY PROGRAM

1-15, 0/0

Acceptance into the program required.

IDE 488 INTERIOR DESIGN INTERNSHIP

3, 0/6

Guided and supervised exposure to professional interior design operations through on-the-job work experience in an authorized design firm, department, studio, or showroom. To earn 3 credit hours, students must complete 135 contract hours with the firm, provide a written report of the work experience, and receive a written evaluation from the employer. Offered fall only.

Equivalent Course: DES 488

IDE 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisite: Faculty adviser permission.

Arts & Letters (ALT)

ALT 150 INTRODUCTION TO DIGITAL MEDIA

3, 3/0

Introductory survey to digital media authoring tools. Students gain basic skills for creating digital media works including manipulated imagery, video, animation, and interactive projects. Places an emphasis on learning the metaphors and concepts of digital authoring software in order to make self directed study more effective. Offered every semester.

Equivalent Course: DMA 150

ALT 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

ALT 490 SENIOR SEMINAR

1-3, 1/0

Prerequisites: Permission of Instructor. Research methodologies and examples of research in the humanities. Students may choose to research and develop their own articulated areas of engagement in the humanities by taking HUM 495 concurrently with this culminating-experience course. Senior-level course; required for humanities majors. Offered occasionally.

ALT 495 SPECIAL PROJECT

1-3, 0/0

ALT 499 INDEPENDENT STUDY

3-12, 0/0

Biology (BIO)

BIO 100 PRINCIPLES OF BIOLOGY

3, 3/0; NS23

Non-majors only. The unifying principles of modern biology with special emphasis on cell biology, metabolism, and genetics. Offered every semester.

BIO 101 HUMAN BIOLOGY

3, 3/0; NS23

Non-majors only. Biological principles of the human condition with particular emphasis on physiology of normal body function with regard to nutrition, disease, psychoactive agents, reproduction and contraception, and aging. Contemporary health-related issues. Offered every semester.

BIO 104 ENVIRONMENTAL BIOLOGY

3, 3/0; NS23

Non-majors only. Biological aspects of global environmental problems. Principles of ecology. Offered every semester.

BIO 111 FOUNDATIONS OF BIOLOGY

3, 3/0

A molecular and cellular approach to understanding human biology. Emphasis on biomolecules, cell structure and function, cell division, genetics, gene expression, and biotechnology as they pertain to understanding human biology and human health. Offered every semester.

BIO 189 TOPIC COURSE

1, 0/3

Current topics in Biology. Offered occasionally.

BIO 211 INTRODUCTION TO CELL BIOLOGY AND GENETICS

4, 3/3

Prerequisite: BIO 111 with a grade of C or better or CHE 112. The chemicals of life and their hierarchical organization in cells. Cell organelles. Metabolism and energy transformations. Cell division, gene expression, Mendelian and population genetics. Biotechnology in human health, nutrition and society. Offered every semester.

BIO 213 INTRODUCTION TO ECOLOGY, EVOLUTION, AND BEHAVIOR

4, 3/3

Prerequisite: BIO 111, C or better. Population, community and ecosystem ecology; human impact on the environment. The Darwinian revolution, evolution of populations and the formation of new species. Principles of animal behavior. Offered every semester.

BIO 295 RESEARCH EXPERIENCE IN BIOLOGY

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

BIO 300 BIostatISTICS

4, 3/3

Prerequisites: Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213; Upper-division status. Statistical inference as a guide to decision making during biological investigations. Elements of experimental design. Exploratory data analysis. Tabular,

graphical, and written interpretation of results. Application of inferential techniques including confidence intervals, t-tests, analysis of variance, chi-square analysis of contingency tables, and linear regression and correlation. Offered spring only.

BIO 301 CELL PHYSIOLOGY

4, 3/3

Prerequisites: BIO 111 (with a grade of C or better), BIO 211, BIO 213, CHE 111/113 and CHE 112/114. Basic concepts in cell physiology with an emphasis on transport across cell membranes, cell communication, and excitability of nerve and muscle cells. Labs introduce students to a variety of techniques employed to study cell physiology including biochemistry, cellular electrophysiology, and fluorescence microscopy. Offered alternate years.

BIO 303 GENETICS

4, 3/3

Prerequisites: BIO 111 (with a grade of C or better), BIO 211, BIO 213, CHE 111/113 and CHE 112/114. Principles of Mendelian, molecular and population genetics. Classic and molecular experimental methods for studying of gene structure, transmission, expression. Offered every fall semester.

BIO 305 MOLECULAR BIOLOGY

4, 3/1

Prerequisites: BIO 111 (grade of C or better), BIO 211, BIO 213, CHE 111/113, CHE112/114 and CHE 201. An in-depth study of the structure and function of eukaryotic genes at the molecular level. Topics include the cellular machinery of gene expression, processes that regulate gene expression, the structure and evolution of the genome, and genes that regulate development. Offered occasionally.

BIO 308 SURVEY OF HUMAN ANATOMY AND PHYSIOLOGY

3, 3/0

Prerequisites: BIO 100 or BIO 101 or BIO 111. Physiology and pertinent anatomy of the major organ systems of the human body including consideration of clinical health and disease. Does not serve as a prerequisite for most postgraduate medical or health programs. Offered each fall semester.

BIO 309 LABORATORY SURVEY OF HUMAN ANATOMY AND PHYSIOLOGY

1, 0/3

Prerequisites: BIO 100 or BIO 101 or BIO 111. Human anatomy and functions of the major anatomical systems using the techniques of rigorous animal dissection (e.g., cats and sheep organs) and physiological experiments. Not applicable as a biology elective for students pursuing a B.A. in biology. Does not serve as a prerequisite for most postgraduate medical or health programs. Offered occasionally.

BIO 311 HUMAN ANATOMY AND PHYSIOLOGY I

4, 3/3

Prerequisites: BIO 100 or BIO 101 or BIO 111 with a grade of C or higher. Advanced study of human anatomy and physiology. Topics include basic biochemistry, function of cells, tissues, integument, skeletal system and joints, muscular system, and nervous system. Offered fall semester.

BIO 312 HUMAN ANATOMY AND PHYSIOLOGY II

4, 3/3

Prerequisite: BIO 311. A continuation of BIO 311. Advanced study of the endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems. Offered spring semester only.

BIO 314 ADVANCED CELL BIOLOGY

4, 3/3

Prerequisites: BIO 111 (grade of C or better), BIO 211, BIO 213, CHE 111/113, CHE112/114 and CHE 201. Current models of eukaryotic cell structure and function. Topics include: membrane transport, electrical properties of membranes, protein targeting, membrane trafficking, cytoskeleton, cell signaling, control of the cell cycle and cancer. Offered every spring semester.

BIO 315 ECOLOGY

4, 3/3; IN23, RE23

Prerequisites: Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213. Ecosystems, biotic communities, interspecific and intraspecific relationships, biogeochemical cycles, energy flow, population ecology, introduction to analysis of community

composition, effects of humanity in modifying natural environments. Several half-day or all-day field trips may be required. Offered fall only.

BIO 316 GENERAL MICROBIOLOGY

4, 3/3

Prerequisites: BIO 211, BIO 213 and CHE 111/113. Microorganisms and techniques of observing their morphology, growth characteristics, and distribution. Microbial molecular biology and genetics. Relevance of microorganisms to everyday human activities. Offered every spring.

BIO 321 COMPARATIVE VERTEBRATE ANATOMY

4, 3/3

Prerequisites: Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213. Function, evolution, and development of the diversity of vertebrate structure. Rigorous dissections of representative vertebrate morphologies (e.g., preserved sharks, amphibians, cats, etc.). Offered occasionally.

BIO 322 GENES AND SOCIETY

3, 3/0

Prerequisites: BIO 100 or BIO 101 or BIO 111. The influence of genes on the human conditions, including diseases, behavior and evolution, and the emerging technologies to alter human genes. Offered occasionally.

BIO 324 BIOLOGY OF HUMAN REPRODUCTION

3, 3/0

Prerequisites: BIO 100 and upper-division status. Non-majors only. Anatomy and physiology of the human reproductive system, development of the human embryo, and the processes of birth and lactation. Offered occasionally.

BIO 325 ICHTHYOLOGY

4, 3/3

Prerequisites: Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213. Study of the biology of fishes: structure and function (anatomy and physiology), systematics, evolution, diversity, zoogeography, and ecology. Offered alternate years.

BIO 333 BIOLOGICAL FORM, FUNCTION AND DIVERSITY

4, 3/3

Prerequisites: Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213. The origin and history of life on Earth and its diversification with an emphasis on Eukarya. Survey of the morphology, physiology, development, reproduction, and life cycles of protists, plants, fungi, and animals. Offered every fall semester.

BIO 350 GENES IN POPULATIONS

4, 3/3

Prerequisites: BIO 111 (with a grade of C or better), BIO 211, BIO 213 and CHE 111/113; Upper-division status. Processes that cause populations to change over time; mutation, natural selection, genetic drift, and gene flow. Application of population genetic principles to problems in conservation biology and forensic genetic analysis. Offered occasionally.

BIO 355 SURVEY OF MICROBIOLOGY

3, 3/0

Prerequisites: BIO 100 or BIO 101 or BIO 111. Non-majors only. Morphology and physiology of microorganisms. General application to infectious disease, food science, and human microbiome. Importance of human gut microbiome and factors regulating diversity of human-associated microbes. Offered every fall.

BIO 361 BIOLOGY SEMINAR

1, 0/0

Participation in weekly seminars on topics ranging from ecology and evolution to biomedical sciences and cell biology.

BIO 362 BIOLOGY SEMINAR

1, 0/0

Participation in weekly seminars on topics ranging from ecology and evolution to biomedical sciences and cell biology.

BIO 375 GLOBAL CHANGE ECOLOGY

3, 3/0

Prerequisites: BIO 211 or BIO 213. Introduction to the concepts and applications of global change ecology, including species invasion, habitat fragmentation and climate change. Ecological and sustainable applications in academic, government and private settings toward evaluating and addressing the impacts of global change. A basic understanding of biology and ecology is helpful but not necessary. Offered occasionally.

BIO 389 TOPIC COURSE

1-6, 1/0

Current advanced topics in Biology. Offered occasionally.

BIO 402 COMPARATIVE ANIMAL PHYSIOLOGY

4, 3/3

Prerequisites: BIO 111 (with a grade of C or better), BIO 211, BIO 213 and BIO 333. Study of hormonal control, neural processing, sensory mechanisms, circulation, gas exchange, digestion, muscles, energetics, and thermoregulation using vertebrate and invertebrate examples. Offered occasionally.

BIO 405 EVOLUTION

3, 3/0

Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213; Upper-division status. The pattern of evolution including fossil, biogeographic, and genomic evidence. Phylogenies; processes contributing to changing allele frequencies in populations through time including selection, drift, mutation, migration, and nonrandom mating; models of speciation. Mendelian framework for quantitative genetics. Sexual selection, inclusive fitness, altruism and the evolution of eusociality. Mass extinction and recent discoveries related to human origins. Offered at least once a year.

BIO 408 PLANT PHYSIOLOGY

4, 3/3

Prerequisites: Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213. Plant physiological processes including photosynthesis, respiration, transpiration, translocation, photomorphogenesis and tropisms; plant water potential, effects of hormones, soil nutrients, environmental stress; plant anatomy in relation to physiological function; use of instrumentation to measure physiological performance. Offered alternate years.

BIO 412 DEVELOPMENTAL BIOLOGY

4, 3/3

Prerequisites: BIO 305 or BIO 314 or BIO 333. Principles and processes of animal development with emphasis on molecular, cellular, and physical mechanisms. Topics include cell fate specification, axis formation, fertilization, cleavage, gastrulation, organogenesis, and regeneration. Comparative aspects of development across different phyla of the animal kingdom. Offered alternate years.

BIO 414 MAMMALOGY

4, 3/1

Prerequisites: Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213. Introduction to the study of mammals: including classification, distribution, ecology, and behavior as they relate to life histories of mammals; identification of mammals in the field and laboratory; and field methods of mammalian studies. Offered occasionally.

BIO 418 LIMNOLOGY

4, 3/3

Prerequisites: BIO 111 (with a grade of C or better), BIO 211, BIO 213 and CHE 111/113; Upper-division status. Physical, chemical, and biological factors that influence freshwater life and the ecological interactions in freshwater communities. Lectures, demonstrations, and field trips. Offered alternate years.

BIO 421 INVERTEBRATE STRUCTURE AND FUNCTION

3, 2/2

Prerequisites: BIO 111 (with a grade of C or better), BIO 211, BIO 213 and BIO 333. Functional approach to the morphology, physiology, adaptation, ecology, reproduction, and evolution of invertebrates. Offered occasionally.

BIO 428 VERTEBRATE STRUCTURE AND FUNCTION

4, 3/3

Prerequisites: BIO 212 and BIO 213. Comparative study of vertebrates with emphasis on their anatomy, adaptations, ecology, and phylogenetic relationships. Offered occasionally.

BIO 429 FISHERIES BIOLOGY

4, 3/3

Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213; Upper-division status. Ecology and management of fish populations. Sampling techniques and fisheries-management techniques (including stocking, hatcheries, and aquaculture programs). Feeding, behavior, and life history of fishes. Offered occasionally.

BIO 430 STREAM ECOLOGY

4, 3/3

Prerequisites: BIO 111 (with a grade of C or better), BIO 211, BIO 213 and BIO 333; Upper-division status. Biological, chemical, geomorphic, and hydrologic features affecting the ecology of flowing water systems. Emphasis on freshwater invertebrate life histories, adaptations, and community structure in shallow streams. Offered alternate years.

BIO 431 AQUATIC ENTOMOLOGY

4, 3/1

Prerequisites: BIO 212 and BIO 213. Survey of the classification, taxonomy, and identification of aquatic insects. Emphasis on aquatic insects of northeastern North America, their life histories, adaptations, and community structure in streams and wetlands. Offered occasionally.

BIO 433 ORNITHOLOGY

4, 3/3

Prerequisites: BIO 111 (with a grade of C or Better), BIO 211 and BIO 213. Introduction to the study of birds including a survey of the diversity of avian behaviors, life history strategies, mating systems, ecology, and physiological-morphological specializations of flight. Offered occasionally.

BIO 434 EXPERIMENTAL BEHAVIORAL ECOLOGY

4, 3/3

Prerequisites: Biology, Chemistry, & Forensic Chemistry Majors Only. BIO211 & BIO213. Exploration of fundamental concepts in the evolution of behavior. Topics include communication, parental care, sexual selection, foraging theory, and kin selection. Development, phylogenetics, and genetics of behavior will be discussed. Offered occasionally.

BIO 435 CANCER BIOLOGY

4, 3/3

Prerequisites: BIO 211, BIO 213, CHE 112/114. Exploration of the fundamental concepts and mechanisms in cancer biology. Topics include the nature of cancer, tumor viruses, oncogenes, growth factors, signal transduction, tumor suppressor genes, cell cycle control, apoptosis, multistep tumorigenesis, and genomic integrity. This course will also cover the basic principles of cancer prevention, diagnosis, and treatment. Offered occasionally.

BIO 440 APPLICATIONS IN BIOTECHNOLOGY

3, 3/0; IN23, RE23

Prerequisites: BIO 111 (with a grade of C or better), BIO 211, BIO 213, CHE 111/113 and CHE 112/114. Case-study exploration of molecular, cellular and immunological techniques used to address industrial, agricultural, environmental and human health issues. Emphasis on underlying biological principles, the biotechnology employed and evidence of effectiveness. Safety, policy issues, bioethical considerations and public perception will be discussed. Offered every fall semester.

BIO 441 BIOINFORMATICS

4, 3/3

Prerequisites: BIO 211, BIO 213, CHE 112/114. Introduction to bioinformatics concepts and techniques. Bioinformatic applications in academic, biotechnological, clinical and pharmaceutical settings for analyzing individual DNA and protein sequences. Hands-on in-class bioinformatics exercises and activities in a form of bioinformatic laboratory. No formal computer programming training or high-level mathematical skills required. Offered occasionally.

BIO 450 RECOMBINANT DNA TECHNOLOGY

4, 2/6

Prerequisites: BIO 303 OR BIO 314. An extensive hands-on experience using the techniques of biotechnology. Techniques involving the construction of recombinant DNA molecules and their analysis will be emphasized. Offered alternate years.

BIO 488 BIOLOGY INTERNSHIP

1-15, 0/0

Prerequisites: Minimum cumulative and biology GPA of 2.5; BIO 111, BIO 211, BIO 213, BIO 333; faculty adviser and department chair permission. An opportunity to apply learned principles and methodologies in a workplace setting. Offered every semester.

BIO 495 SPECIAL PROJECT

1-3, 0/0

Prerequisites: Faculty adviser and department chair permission. Offered every semester.

BIO 498 HONORS RESEARCH

1,3, 0/0

Prerequisites: BIO 111, BIO 211, BIO 213, BIO 333; completion of 70 or more credit hours; minimum GPA of 3.4 in biology major and minimum cumulative GPA of 3.0. Independent investigation of an original scientific problem, completed over two semesters with transition to the second semester dependent upon satisfactory completion of research proposal during the first semester.

Submission of a final written report of investigation and an oral presentation of work at a scientific meeting. Offered every semester.

BIO 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisites: Faculty adviser and department chair permission. Offered every semester.

Business, Economics, and Public Administration (BUS, ECO, FIN, PAD)

Business (BUS)

BUS 116 INTRODUCTION TO BUSINESS

3, 3/0

Provides an overview of current developments and characteristics, elements, principles, and practices of contemporary business. Students learn basic business concepts: variations in business genesis processes, life cycle stages, environmental factors as they affect business; and the critical role business plays as a socio-economic subsystem of society. Offered every semester.

BUS 117 INTRODUCTION TO RETAILING

3, 3/0

Role and function of retailing as a channel of distribution, the relationship and responsibilities to the producer and consumer. Offered occasionally.

BUS 189 TOPICS COURSE

1-3, 0/0

Offered occasionally.

BUS 201 FOUNDATIONS OF LEADERSHIP

3, 3/0

History of leadership and leadership as an ongoing process of challenge, growth, and development. Students learn the foundational concepts of leadership, assess their own leadership styles, and discuss issues relevant to leadership. Provides opportunities for the practice of leadership skills in campus and community organizations. Offered every semester.

Equivalent Courses: CRS 201, UNC 201

BUS 212 ACCOUNTING PRINCIPLES

3, 3/0

Introduction to the accounting cycle and double-entry bookkeeping. Students analyze business transactions, apply rules of debits and credits, and prepare income statements and balance sheets. Offered every semester.

BUS 300 INTERNATIONAL BUSINESS

3, 3/0

Prerequisite: Sophomore status. Concepts, theories, and practices of international business and the multinational corporation. Global nature of the world economy. Environmental constraints, regional issues, and functional business operations. Offered every semester.

BUS 305 DIVERSITY AND INCLUSION IN THE WORKPLACE

3, 3/0; DI23

Prerequisite: Sophomore-level standing. Survey of legal, policy, and social psychological perspectives of diversity and inclusion in the workplace. Overview of laws and public policies that provide the basis for diversity management, employment discrimination laws and affirmative action policies, the impact on workplaces, and management of global inclusive workforces. Offered every semester.

BUS 312 FINANCIAL ACCOUNTING

3, 3/0

Introduction to the fundamental accounting theories and methods underlying financial statements and the use of accounting information by decision makers. Offered every semester.

BUS 313 MANAGERIAL ACCOUNTING

3, 3/0

Prerequisite: BUS 312. Managerial accounting focuses on accumulating, processing, reporting, and interpreting decision-relevant financial information which are used in managing an organization. Topics include cash flow analysis, time value of money, cost behavior, budgeting, and elements of cost accounting. Offered every semester.

BUS 320 PRINCIPLES OF MARKETING

3, 3/0

Prerequisite: Sophomore status. A review of basic concepts, principles, and strategies used in the marketing of product offerings. Marketing involves understanding consumer needs and wants, deciding which target markets the organization can serve best, and developing a value proposition by which the organization can attract, keep, and grow targeted consumers. Offered every semester.

BUS 321 DIGITAL MARKETING AND STRATEGY

3, 3/0

Prerequisite: BUS 320. Explores core principles of developing a digital marketing campaign, required strategies for conversion, and industry tools. Gain essential knowledge of social media marketing, search engine optimization, content strategy, email marketing, and campaign key performance indicators, equipping them with the skills to excel in the dynamic digital landscape. Offered every semester.

BUS 323 SALES METHODS AND TECHNIQUES

3, 3/0

Prerequisite: BUS 320, business major. Foundation in sales principles and techniques. Emphasis on the personal development of sales skills, analysis of characteristics, behavior, and motivation of buyers, and the use of the selling process to achieve customer satisfaction. Offered annually.

BUS 324 BUSINESS COMMUNICATION

3, 3/0

Prerequisite: BUS 360, Bus Major, Jr/Sr Status. Communication principles, concepts, and techniques which are essential components for effective organizational behavior in a business setting. Emphasis on planning, organizing, composing, and revising of business documents such as emails, memos, letters, and reports. Presentation skills, professional behavior in the workplace, and current and digital communication technologies included. Offered every semester.

BUS 325 HUMAN RESOURCE MANAGEMENT

3, 3/0

Prerequisite: Business major. Theoretical and practical knowledge in the major areas of human resource management including selecting, training, developing, evaluating and compensating employees. Offered every semester.

BUS 327 ADVERTISING CONCEPTS AND PRACTICES

3, 3/0

Prerequisite: BUS 320, business major. Introduction to the field of advertising, including discussion of research, target marketing media selection and evaluation, goal setting and budgeting, and the development of advertising campaigns. Offered every semester.

BUS 329 SALES MANAGEMENT

3, 3/0

Prerequisite: BUS 320, business major. Sales management function within modern organizations including sales-force operation, sales strategies, leadership, ethics, recruitment, selection, and motivation of staff. Sales management as a vital business function within the context of a global economy. Offered annually.

BUS 330 MARKETING MANAGEMENT

3, 3/0

Prerequisite: BUS 320, business major. Marketing-oriented thinking in today's competitive environment; analyzing needs, identifying opportunities, bringing valued offers to targeted customer groups; analyzing, planning, implementing, and controlling marketing strategies. Includes recent themes: customer relationship management, technology/Internet revolution, brand building, and global marketing from a marketing manager's perspective. Offered every semester.

BUS 334 BUSINESS LAW I

3, 3/0

Legal principles applicable to business enterprises and operations including advisory and judicial systems; contracts and sales; commercial paper, secured transactions, property, torts, and appropriate sections of the Uniform Commercial Code. Offered every semester.

BUS 335 BUSINESS LAW II

3, 3/0

Prerequisite: BUS 334, business major. The nature of real and personal property; trusts, wills and estates; creditor's rights and secured transactions; government regulation of business; administrative law; insurance, and evidence. Topics may include taxation of income, arbitration in resolving contract disputes, and Rule 10 b-5 of the Securities and Exchange Commission. Offered annually.

BUS 340 SECURITIES

3, 3/0

Prerequisite: Junior/senior status. Securities and securities markets. Emphasis on investment markets and their interaction with the macroeconomics system. Offered occasionally.

BUS 341 COMMODITIES

3, 3/0

Prerequisite: Junior/senior status. Commodities futures trading. Special emphasis on terminology, hedging procedures, trading procedures, and price-making influences. Offered occasionally.

BUS 347 RETAIL MANAGEMENT

3, 3/0

Prerequisite: BUS 320, business major. Introduction to trends and developments in retailing and to the operation of retail organizations. Strategic planning, financial control, merchandising, site selection, store organization, pricing and promotion. Offered every semester.

BUS 348 ELECTRONIC COMMERCE

3, 3/0

Prerequisite: BUS 320, business major. Introduction to the principles and practices of electronic commerce including EDI, electronic payment, online promotion, electronic shopping and distribution, online stores and malls, security, intellectual property rights, and legal issues. Select tools and skills required for navigating the Internet and creating a Web site. Offered annually.

BUS 350 CURRENT PRACTICES IN BUSINESS TECHNOLOGY

3, 3/0

Prerequisite: BUS 360, sophomore status or higher. Instruction in the use of information technology and business computer applications including spreadsheets, graphic presentations, networking, database management, word processing and office automation. Emphasis on using computers and computer-based information in the decision-making process. Offered every semester.

BUS 360 PRINCIPLES OF MANAGEMENT

3, 3/0

Prerequisite: Sophomore status. Learn the principles, techniques, and concepts needed for managerial analysis and decision-making. It highlights the effective management of planning, organizing, influencing, and controlling related to the internal and external environment and issues of ethics and social responsibility. Offered every semester.

BUS 362 BUSINESS PROJECT MANAGEMENT

3, 3/0

An understanding of the foundational knowledge, skills, tools and techniques of project management integral to the success of a project, using the Knowledge Areas and Process Groups related to project management methodologies. An examination and application of current practices in project management as applied to business-related projects. Offered annually.

BUS 363 BUSINESS IN THE WESTERN HEMISPHERE

3, 3/0

Prerequisite: BUS 360, business major. Survey of business practices in the Western Hemisphere including economic, cultural and political differences among countries, regional trade agreements, and trade practices. Select countries are compared in terms of management, marketing and human resources practices, organizational communications, and business ethics. Offered annually.

BUS 364 SUPPLY CHAIN MANAGEMENT

3, 3/0

Prerequisite: BUS 360. Design and management of supply chains for competing effectively in global markets. The management of specific functions such as procurement, manufacturing, logistics, and inter-organizational information and coordination. Topics include qualitative and quantitative techniques for optimum configuration of supply chains, including design configuration, postponement, mass customization, location, vendor-managed-inventory, supply networks, and strategic alliances. Offered annually.

BUS 365 ENTREPRENEURSHIP

3, 3/0

Prerequisite: Sophomore status. Overview of the entrepreneurial process. Focus on identifying and evaluating ideas and learning the steps and competencies required to launch a successful new venture. Topics include characteristics of successful entrepreneurs, techniques for finding and screening ideas, entrepreneurial finance, valuation and deal making, and writing a business plan. Offered every semester.

BUS 366 MANAGEMENT INFORMATION SYSTEMS

3, 3/0

Prerequisites: BUS 360, business major. A balanced framework for the successful management of today's increasingly complex array of information. Tools for dealing with and improving the management of information in a variety of business settings using application software such as Microsoft Office. Offered annually.

BUS 367 STRATEGIC MANAGEMENT OF INNOVATION AND TECHNOLOGY

3, 3/0

Prerequisite: BUS 360, business major. Strategic management in newly created and established firms from the perspectives of various functional groups (e.g., research and development, manufacturing, management, and marketing) and levels of general management (business, project, corporate) involved in the process of technological innovation. Offered occasionally.

BUS 368 SPORTS MANAGEMENT AND MARKETING

3, 3/0

Prerequisite: BUS 320, BUS 360, Business and non-business majors. The administration, coordination, technical considerations, and evaluation of event-related sports. Provides professional and general education base for careers in sports and recreational management and marketing. Offered every semester.

BUS 369 ORGANIZATIONAL CHANGE AND DEVELOPMENT

3, 3/0

Prerequisite: BUS 360, business major. The process of organizational change; conceptual foundation, principles, and practical applications for use in the design and development of organizations to improve organizational effectiveness in dynamic and competitive environments. Offered every semester.

BUS 389 SPECIAL TOPICS

3, 0/0

Upper-level topics course in Business. Offered occasionally.

BUS 403 CONSUMER BEHAVIOR

3, 3/0

Prerequisite: BUS 320, business major. Investigation of market offerings and their effect on consumers' lives before, during, and after the point of purchase. Specifically, how these items influence how consumers feel, especially in the canon of social media and the digital age. Offered every semester.

BUS 404 MARKETING RESEARCH

3, 3/0

Prerequisite: BUS 320, business major. Research methods and techniques used to collect data and provide information for solving marketing problems, design, sampling, data collection, analysis and interpretation, and report preparation. Orientation from the perspective of users of marketing research. Offered annually.

BUS 410 ACCOUNTING ANALYSIS

3, 3/0

Prerequisites: BUS 313 and junior/senior status. Management fundamentals and economic concepts of the firm. Application of accounting concepts and techniques in preparing, presenting, and interpreting the accounting information used by management in planning and controlling operations. Offered occasionally.

BUS 412 INCOME TAXATION

3, 3/0

Fundamentals of federal income taxation. Course focuses on concepts related to gross income, deductions, credits, and property transactions. Offered occasionally.

BUS 413 TAXATION OF CORPORATIONS

3, 3/0

Prerequisite: Junior/senior status. Federal taxation of corporate income and shareholders; includes organizing and capitalizing the corporate entity, determining tax liability, dividends and other non-liquidating distributions, stock redemptions, liquidations, and other corporate entities, such as S corporations and LLCs. Offered occasionally.

BUS 417 INTERNATIONAL ACCOUNTING

3, 3/0

Prerequisites: Business major and completion of BUS 312, BUS 313, and ECO 314. Designed to familiarize students with the accounting issues arising from national differences in accounting systems, standards, terminology, disclosure patterns, tax policies, fluctuations in exchange and inflation rates, and managerial options for dealing with these issues. Offered occasionally.

BUS 420 INTERNATIONAL MARKETING

3, 3/0

Prerequisite: BUS 320, business major. Course presents various concepts and tools for analyzing international marketing strategies and evaluating the marketplace. This includes competitors and the external environment: demographic, cultural, economic, technological, political/legal, natural, and presenting marketing opportunities. Focusing on developing, evaluating, and implementing international marketing strategy at all geographic levels. Offered every semester.

BUS 424 INTERNATIONAL BUSINESS COMMUNICATION

3, 3/0

Prerequisite: BUS 324, business major. Preparation for the complex communication tasks encountered in the world of international business. Cultural aspects that influence communication including language, environment and technology, social organization, contexting, authority conception, nonverbal communication, and temporal conception. Emphasis on understanding social and cultural differences and developing effective communication strategies for the global corporation. Offered annually.

BUS 425 INTERNATIONAL AND CROSS-CULTURAL TRAINING

3, 3/0

Prerequisites: BUS 360 and BUS 325, Business major. Analysis, selection, design, implementation, and evaluation of training programs to increase functional capabilities in international and multicultural environments. Emphasis on communication strategies, human response to cultural settings, and procedures for increasing performance. Offered occasionally.

BUS 426 CREATIVE OPPORTUNITIES IN LEADERSHIP AND MANAGEMENT PRACTICES

3, 3/0

Prerequisites: BUS 360 and BUS 325. Explores and fosters the critical role of the leader in modern organizational settings. Students will gain a deep understanding of how to harness novel and new methods to drive innovation, problem-solving, and sustainable growth within the workplace. Offered occasionally.

BUS 428 ADVANCED MERCHANDISING

3, 3/0

Prerequisite: BUS 326 or permission of instructor. Techniques of merchandising fashion apparel, accessories, housewares, major and minor appliances, and furniture. Major approaches used in planning and analyzing sales and stock records, and the use of operating and financial data to make profitable merchandising decisions as well as market planning. Offered occasionally.

BUS 430 STRATEGIC MANAGEMENT

3, 3/0; IN23, RE23

Prerequisite: Business major; senior status. Methods and techniques commonly used in strategic management decision making. Provides a background in strategic analysis and implementation of strategy in a global environment. Examines the total enterprise, the industry, and the competitive environment in which it operates. Capstone course that integrates all previous coursework. Offered every semester.

BUS 440 BUSINESS SENIOR SEMINAR

3, 3/0

Prerequisite: Senior status. Designed to help business students in the transition to professional employment. Career paths and employment opportunities, employee-benefit packages and policies, Affirmative Action programs, Equal Employment Opportunity, on-the-job considerations, and related subjects. Offered occasionally.

BUS 460 OPERATIONS MANAGEMENT

3, 3/0

Prerequisite: BUS 360, Junior or Senior Status. Provides a fundamental understanding of manufacturing and service operations and their role in the organization. Surveys a wide range of operations topics, including process analysis, supply chain management, capacity planning, facilities location, quality management, and production and resource planning. Offered every semester.

Equivalent Course: TEC 460

BUS 473 INTERNATIONAL MANAGEMENT

3, 3/0

Prerequisite: BUS 360, BSA, Junior or Senior Status. This course presents various concepts, discussions, and tools for analyzing international management practices around the world. Students will gain an understanding of the variations and nuances of global management cultures, goals, and corporate structures. Offered every semester.

BUS 483 BSC LED STUDY AWAY PROGRAM

1-15, 0/0

Acceptance into the program required.

BUS 488 INTERNSHIP

1-12, 0/0

Prerequisites: Junior/Senior status, Business major. Supervised internship/field experience in a business setting offering practical, hands-on application of business concepts and theories. The internship is under the direction of a faculty internship supervisor with cooperation of company internship supervisor. Students can earn 3-12 credits based on internship hours completed. Offered every semester.

BUS 490 FIELD EXPERIENCE

1-3, 0/0

Prerequisites: Junior/senior status, permission of instructor. Provides non-business students the opportunity to have experience related to their majors in public or private agencies, business organizations, or educational institutions. Offered occasionally.

BUS 495 SPECIAL PROJECT

1-3, 0/0

Special project in Business.

BUS 497 SPECIAL COURSE

0, 0/0

Special workshop in Business.

BUS 499 INDEPENDENT STUDY

3-12, 0/0

Independent study in Business.

Economics (ECO)

ECO 101 THE ECONOMIC SYSTEM

3, 3/0; SS23

Overview course. Development of fundamental economic concepts, basic economic institutions and their history, and contemporary economic issues. Supply and demand, markets, gross domestic product (GDP), inflation and recession, and the role of government. Economic issues such as energy, environment, education, and health care included when appropriate. Will not count toward the credit hour requirement of majors. Offered every semester.

ECO 103 ECONOMIC HISTORY OF THE UNITED STATES

3, 3/0; AH23

The history of the United States from an economic perspective. U.S. history is understood by studying the development of economic institutions and social change. Causes and effects of changing labor organization and relations, production technique, business and industrial organization, trade patterns, and economic policy. Offered every semester.

ECO 104 HISTORY OF ECONOMIC DEVELOPMENT IN THE THIRD WORLD

3, 3/0

A history of economic development in Asia, Africa and Latin America for those with no previous college-level background in economics. The course concentrates on the experience of formerly colonized countries over the past 200 years as part of a broad outline of world economic history since 1492. Offered occasionally.

ECO 189 TOPICS COURSE

1-3, 1/0

Current topics in Economics. Offered occasionally.

ECO 201 PRINCIPLES OF MACROECONOMICS

3, 3/0; SS23

The major economic forces-consumer expenditure, business investment, and government spending-and their influence on national income. Money and banking, monetary and fiscal policies, inflation and recession, economic growth, and international monetary problems. Either ECO 201 or ECO 202 may be taken first. Offered every semester.

ECO 202 PRINCIPLES OF MICROECONOMICS

3, 3/0; SS23

Individual units in the economy-consumers, firms, and resource owners-and how their decisions influence market prices and industrial output. Supply and demand, competition and monopoly, corporations, capitalism and socialism, labor, and international trade. Either ECO 201 or ECO 202 may be taken first. Offered every semester.

ECO 220 ECONOMICS OF SPORTS

3, 3/0

The principles of economic analysis through investigation of the sports industry. Profits, labor conflicts, and other special features of professional and collegiate sports. Offered occasionally.

ECO 300 LABOR ECONOMICS

3, 3/0

Prerequisite: ECO 202. Competing theories of labor-market operation in market economies. Problems of labor markets (such as unemployment and discrimination). History of the evolution of labor markets in the United States and the role of government in affecting outcomes. Current issues, including increasing international competition in product and labor markets, the impact of technological change in altering workforce skill and educational requirements, and structural change in compensation and occupational distribution. Offered occasionally.

ECO 301 ECONOMICS OF LABOR RELATIONS

3, 3/0

Present-day techniques in labor-management negotiations, the collective bargaining agreement, the development and structure of organized labor, labor law, and labor economics. Offered occasionally.

ECO 302 WOMEN IN THE ECONOMY

3, 3/0

Recommended Prerequisites: ECO 201 or ECO 202. Analysis of the economic status of women in the United States and other selected nations as compared to men's status and differentiated by age, race, ethnicity, and marital status. Offered occasionally.

ECO 304 MONEY AND BANKING

3, 3/0

Prerequisite: ECO 201. The nature and function of money. The American monetary system and the role of the banking system. The structure and functions of the Federal Reserve System. Fundamental monetary theory and its relation to monetary policy. Current problems relating to the impact of monetary policy on prices and employment. Offered every semester.

ECO 305 STATISTICS FOR ECONOMICS

3, 3/0; MQ23

Introduction to elementary statistical principles, descriptive statistics, and statistical inference. Applications in economics, business, and criminal justice. Required for majors. Offered every semester.

ECO 307 INTERMEDIATE MICROECONOMICS

3, 3/0

Prerequisites: ECO 202 and MAT 114 or equivalent. Advanced study of individual units in the economy and how their decisions influence market prices and industry output. Includes the theory of consumer demand, the theory of the firm, resource allocation, income distribution, and welfare economics. Required for majors. Offered every semester.

ECO 308 INTERMEDIATE MACROECONOMICS

3, 3/0

Prerequisites: ECO 201 and MAT 114. Advanced study of aggregate economic activity and its influence on national income. Includes Classical and Keynesian theory, monetary and fiscal policies, business cycles, forecasting, and economic growth. Required for majors. Offered every semester.

ECO 312 URBAN ECONOMICS

3, 3/0

Prerequisite: ECO 202 or permission of instructor. Application of economic analysis to urban growth, land use, poverty, housing, segregation, pollution, congestion, and urban public finance. Offered alternate years.

Equivalent Course: ECO 312

ECO 320 MANAGERIAL ECONOMICS

3, 3/0

Prerequisites: ECO 202, ECO 305, and MAT 114 or equivalent. Using economic analysis to formulate and provide guides to the solution of management decision and control problems, and the development of appropriate business policies. Offered alternate years.

ECO 323 NEW YORK STATE GOVERNMENT AND BUDGET

3, 3/0

Prerequisite: PSC 102 or ECO 201 or instructor permission. Course covers fiscal federalism, economic climate, NYS budget components and processes, contemporary policy issues, political parties, interest groups, and NYS government institutions. Offered every spring.

Equivalent Course: PSC 323

ECO 325 INDUSTRIAL ORGANIZATION

3, 3/0

Prerequisite: ECO 202 or permission of instructor. The links between economic theory and structure, conduct, and performance of national and international industry over time. Designed for economics and business majors. Emphasis on price theory, inter- and intra-firm relationships, and industrial policy. Offered alternate years.

ECO 340 FEDERAL INCOME TAXATION

3, 0/0

Course is designed to provide a short intensive training in the application of the tax principles and business decisions so as to obtain practical and professional values. Course is an extension of Economics 305: Public Finance to provide comprehensive study of Federal income taxation as a new elective for economics majors. Emphasis is on the "why" and "so what" of the Federal income tax. Estate and gift tax consequences are considered where they are appropriate. Offered occasionally.

ECO 350 PUBLIC FINANCE

3, 3/0

Prerequisites: ECO 202. The nature and growth of public expenditures; principles of taxation; federal, state, and local revenue; introduction to fiscal policy and theory; significance of public debt; selected problems in intergovernmental fiscal relations. Offered alternate years.

ECO 355 THE ECONOMICS OF ENERGY AND THE ENVIRONMENT

3, 3/0

Prerequisite: ECO 202 or permission of instructor. Micro- and macroeconomic activity imposed by the availability of energy resources and by environmental considerations. Alternative policy strategies relating to energy and the environment are evaluated in terms of their economic impact. Offered alternate years.

ECO 360 INTRODUCTION TO THE ECONOMIC ANALYSIS OF LAW

3, 3/0

Prerequisite: CWP 102. Introduction to the study of law from an economic perspective. No prior knowledge of law is required, and all economic concepts needed are presented. Uses economic concepts and reasoning to explain and predict consequences of legal rules. Includes important issues found in court cases involving contracts, property law, liability, and environmental law. Offered alternate years.

ECO 389 TOPICS COURSE

1-3, 1/0

Current advanced topics in Economics. Offered occasionally.

ECO 401 INTERNATIONAL ECONOMICS

3, 3/0

Prerequisites: ECO 201 and ECO 202; ECO 307 recommended. Basic theories of international trade. The international monetary mechanism and the institutions that facilitate its operation. Foreign economic policy and contemporary problems relating to tariffs, payments, balances, devaluation, and gold as a means of settling international payments in balances. Offered fall only.

ECO 403 COMPARATIVE ECONOMIC SYSTEMS

3, 3/0

Prerequisites: ECO 201 and ECO 202 or permission of instructor. Essential characteristics of different market economies as they have evolved to the present, their strengths and weaknesses, increasing social control, trading and monetary unions, contrast with socialist systems. Offered occasionally.

ECO 404 ECONOMIC DEVELOPMENT

3, 3/0

Prerequisite: Minimum of two economics courses. The difficulties of economic development, industrialization, and worldwide poverty. Competing theories of economic growth and structural change. Problems of population, natural resources, and environment. The growing interdependency of the U.S. and lesser-developed countries' (LDCs) economies. The crucial role of women in development, as well as ethnic and other social and cultural relationships. LDCs debt crisis and international finance. Macro- and microeconomic planning models. The policy-making process, development strategies, and specific case studies of LDCs in Africa, Asia, and Latin America. Offered occasionally.

ECO 405 HISTORY OF ECONOMIC THOUGHT

3, 3/0

Prerequisites: ECO 201 and ECO 202 or permission of instructor. The attempts of key economic thinkers from Aristotle to the present to analyze economic phenomena and provide guidance for economic policy. Offered fall only.

ECO 407 POLITICAL ECONOMY CLASSICS

3, 3/0

Prerequisite: ECO 201 or ECO 202. In-depth study of classic political economic thought, including Adam Smith's *Wealth of Nations*; David Ricardo's *Principles of Political Economy and Taxation*; Karl Marx's *Das Kapital*, Volume I; and John Maynard Keynes's *General Theory*. Relationships between these classics and modern economic thought and socioeconomic phenomena. Offered occasionally.

ECO 411 REGIONAL ECONOMIC ANALYSIS

3, 3/0

Prerequisites: ECO 201 and ECO 202 or permission of instructor; college-level algebra recommended. Analysis of location of economic activity, urbanization patterns, and regional growth and development. Techniques in measuring the level of economic

activity of a region, using Western New York as a model. The impact of the Buffalo urban area on the development of the surrounding region. Offered occasionally.

ECO 412 URBAN ECONOMICS

3, 3/0

Prerequisite: ECO 201 or ECO 202 or permission of instructor. Application of economic analysis to urban growth, land use, poverty, housing, segregation, pollution, congestion, and urban public finance. Offered occasionally.

ECO 424 ECONOMETRICS

3, 3/0; IN23

Prerequisites: MAT 126, ECO 201 or ECO 202, and ECO 305 or equivalent statistics course. Introduction to applied statistical analysis, with primary emphasis on business and economic applications. Provides quantitative background for graduate study in economics, business, public administration, and related social science, as well as for many types of employment. Offered every semester.

ECO 425 BASIC RESEARCH METHODS IN ECONOMICS

3, 3/0

Prerequisites: ECO 305 or instructor permission. An elective course for economics and related majors designed to introduce students to the basic methods and problems in applied economic research. Emphasis is placed on organizing research projects, finding sources of data, using the computer to solve specific research problems, and writing research reports. Offered occasionally.

ECO 488 INTERNSHIP

3-12, 0/0

Prerequisites: ECO 201, ECO 202, and one relevant elective; minimum cumulative GPA of 2.75; upper-division status. Application and integration of economic concepts and methodologies in an off-campus field setting, under the direction of a faculty sponsor, with the cooperation of a designated field supervisor. A maximum of 3 credit hours of ECO 488, ECO 495, or ECO 499 may be applied toward the major. Offered every semester.

ECO 490 SENIOR SEMINAR

3, 3/0; RE23

Prerequisites: ECO 305, ECO 307, ECO 308, and senior standing. ECO 424 recommended. Capstone course required of all senior economics and finance majors. Investigation and oral presentation of findings of selected advanced topics in economics and finance. Senior thesis on a topic in economics or finance required. Offered every semester.

ECO 493 APPLIED ACTUARIAL THEORY

3, 3/0

Prerequisites: MAT 381 and ECO 424. Advanced consideration of actuarial studies and models with an emphasis on applied modeling of actuarial activity and current actuarial processes. Major areas and theories in actuarial sciences as used by companies, government and not-for-profits. Mathematical, statistical, economic and finance models used by actuaries in the field. Analysis of different types of data to understand the financial risks facing different groups. The capstone course for majors in actuarial sciences. Offered occasionally.

ECO 495 SPECIAL PROJECT

1-3, 0/0

Prerequisites: ECO 307 and ECO 308 and permission of instructor. A maximum of 3 credit hours of ECO 488, ECO 495, or ECO 499 may be applied toward the major. Offered every semester.

ECO 498 HONORS RESEARCH

3, 0/0

Prerequisite: Admission to honors program in economics. A review of the literature and development of the theoretical issues relevant to the research topic. Offered occasionally.

ECO 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisites: Permission of instructor. A maximum of 3 credit hours of ECO 488, ECO 495, or ECO 499 may be applied toward the major. Offered every semester.

Finance (FIN)

FIN 110 PERSONAL FINANCE

3, 3/0

Prerequisite: Successful completion of Mathematics and Quantitative Reasoning general education requirement. Basics of personal and household finance. Saving, debt reduction, home and automobile financing, retirement planning, investment, and insurance. Offered alternate years.

FIN 189 TOPICS COURSE

1-3, 1/0

Current topics in Finance. Offered occasionally.

FIN 314 CORPORATION FINANCE

3, 3/0

Prerequisites: ECO 201, or ECO 202 and BUS 312. Introduction to analytical techniques and terminology of corporate financial management. Includes the financial environment, yield-curve analysis, ratio analysis, the DuPont system, pro-forma balance sheets and income statements, the Capital Asset Pricing Model, the intrinsic value of stocks and bonds, the time value of money, capital budgeting, and working capital management. Offered every semester.

FIN 345 ESTATE PLANNING

3, 3/0

Prerequisite: Upper-division status. Provides financial security during retirement years and facilitates the intended and orderly disposition of property upon disability or death. Addresses concepts and techniques of lifetime financial planning that may lead to increases in one's estate and the conservation of existing assets. Includes a critical evaluation of traditional planning techniques and analysis of major advanced methods, including various living trusts, irrevocable life insurance trusts, charitable remainder trusts, and family-limited partnerships. Offered fall only.

FIN 370 TECHNICAL ANALYSIS OF FINANCIAL MARKETS

3, 3/0

Prerequisites: ECO 202 or ECO 201 or ECO 101. Study of the market action of financial products such as securities, bonds, futures, and derivatives through the use of charts and figures. Effects of business, economic, and social realities and perceptions on price in financial markets. Market models and theory and the practices and instruments of market players. Technical analysis as a forecasting tool of both market and economic trends in various time frames. Offered fall only.

FIN 389 TOPICS COURSE

1-3, 1/0

Current advanced topics in Finance. Offered occasionally.

FIN 400 INTERNATIONAL FINANCE

3, 3/0

Prerequisites: ECO 201 and ECO 202 and FIN 314. Basic theories in international finance and applications, including analysis of exchange-rate markets, international capital markets, multinational capital budgeting, cash management, and international banking. Provides a strong background in international financial markets and international financial policy. Offered fall only.

FIN 414 INVESTMENT MANAGEMENT

3, 3/0

Prerequisite: FIN 314. Operating and efficiency characteristics of security markets. The application of institutional, technical, and theoretical approaches to security analysis and evaluation of investment portfolios. Offered spring only.

FIN 415 CASES IN CORPORATION FINANCE

3, 3/0

Prerequisite: FIN 314; ECO 307 recommended. Application of the case approach to problems in business finance. Includes working capital financing, term borrowing, capital budgeting, and mergers and acquisitions. Offered occasionally.

FIN 416 ADVANCED CORPORATION FINANCE

3, 3/0

Prerequisites: FIN 314. Advanced study of the practice and theory of corporation finance, focusing on topics not covered in introductory corporation finance. Includes advanced debt policy, options, leasing, mergers, international financial management, and pension plans. Offered occasionally.

FIN 417 DERIVATIVE SECURITIES

3, 3/0

Prerequisite: FIN 314. How modern securities are created from their basic components. Includes circus swaps, artificial Treasury bills, artificial cash, synthetic puts, and portfolio insurance products. Offered spring only.

FIN 418 BOND MARKETS

3, 3/0

Prerequisite: FIN 314. Introduction to bond management. Includes bond pricing, yield measurements, return measurements, duration, convexity, Treasury securities, agency securities, corporate debt, municipal bonds, the term structure of interest rates, mortgage loans, pass-through securities, CMOs, return characteristics of derivative products, and bond hedging using options and futures. Offered fall only.

FIN 419 MERGERS AND ACQUISITIONS

3, 3/0

Prerequisites: FIN 314. Identification of firm valuation through mergers and acquisitions; drivers of successful and unsuccessful corporate restructurings; design and evaluation of structured transactions. Strategic planning, investment decisions, and other factors underlying mergers - deal tactics, law, accounting and taxation. Capital market reactions to control transactions; defensive measures against takeover bids. Offered spring only.

FIN 425 BASIC RESEARCH METHODS IN ECONOMICS

3, 3/0

Prerequisites: ECO 305 or instructor permission. An elective course for economics and related majors designed to introduce students to the basic methods and problems in applied economic research. Emphasis is placed on organizing research projects, finding sources of data, using the computer to solve specific research problems, and writing research reports. Offered occasionally.

FIN 499 INDEPENDENT STUDY

3-12, 0/0

Public Administration (PAD)

PAD 101 INTRODUCTION TO PUBLIC ADMINISTRATION AND NONPROFIT MANAGEMENT

3, 3/0

Overview of public and nonprofit agencies, socioeconomic and cultural impact of nonprofits, public-nonprofit partnerships, employment systems, governance in public and nonprofit sectors, ethical challenges. Offered every semester.

PAD 307 METROPOLITAN GOVERNANCE

3, 3/0

Prerequisites: PAD 360 or instructor permission. Metropolitan governance focuses on the development and implementation of public policy goals in metropolitan regions. Topics include: types of local governments and their responsibility and authority; public-private partnerships; economic growth and decline; intergovernmental relations; urban and neighborhood renewal.

PAD 347 EVOLUTION AND DEVELOPMENT OF THE NONPROFIT SECTOR

3, 3/0

Prerequisites: Junior or Senior Standing or Instructor Permission. An overview of the U.S. nonprofit sector, highlighting the unique and distinct roles nonprofits perform in our society. The history and evolution of the U.S. nonprofit sector, along with an overview of the scope and functions of tax-exempt organizations, and various theories that explain the existence of the nonprofit sector and why the sector continues to grow. Offered occasionally.

PAD 348 GRANTS MANAGEMENT AND FUND DEVELOPMENT IN PUBLIC AND NONPROFIT AGENCIES

3, 3/0

Prerequisites: Junior or Senior Status. Resource development for nonprofit and public organizations, grant seeking process, fundraising strategies and plans, Requests for Proposals (RFPs), students will prepare an actual grant proposal and a fundraising plan. Offered spring only.

PAD 360 PUBLIC ADMINISTRATION

3, 3/0

Introduction to public administration: analysis of government administration in its social, economic, and political settings; the role of public administration in formulating public policy; organization and management in public services; personnel and financial management.

Equivalent Course: PSC 360

PAD 368 COMPARATIVE PUBLIC ADMINISTRATION

3, 3/0

Introduction to cross-cultural, cross-national, or cross-institutional study of public administration institutions and practices; the administrative systems of European countries and the processes of administrative change in developing countries; the evolution of bureaucracy.

Equivalent Course: PSC 368

PAD 389 TOPICS IN PUBLIC ADMINISTRATION

3, 3/0

In-depth study of current issues of substantial political significance, such as: public personnel administration, defense policy, computers and political science, environmental policy, political communication, health policy, and human rights.

PAD 390 RESEARCH METHODS IN PUBLIC ADMINISTRATION

3, 3/0

Prerequisites: Junior or senior standing. Design, execution, and interpretation of research for public and nonprofit managers. Includes quantitative, qualitative, and mixed research methods, constructing and testing hypotheses, data collection and analysis, use of SPSS for data analysis, use of EndNote for research and literature reviews, ethical consequences of social science research, preparing a research paper.

PAD 400 INTERNATIONAL PUBLIC MANAGEMENT AND SERVICE

3, 3/0

Prerequisites: PAD 360 or instructor permission. Examines areas of public management, public service, and public-private partnerships as related to the US federal government, international government organizations (IGOs), and the global arena.

PAD 401 HUMAN RIGHTS AND HUMANITARIAN POLICY

3, 3/0

Prerequisites: PAD 360 or instructor permission. Examines areas of international human rights and humanitarian assistance as related to the legal aspects and major practical and policy considerations in the global arena.

PAD 403 NGO MANAGEMENT AND INTERNATIONAL DEVELOPMENT

3, 3/0

Prerequisites: PAD 360 or instructor permission. Examines areas of international development and non-governmental organizations (NGO) as related to their operation, management and effectiveness. Offered J-Term only.

PAD 435 ADMINISTRATIVE PRACTICES IN PUBLIC AND NONPROFIT SECTORS

3, 3/0

Prerequisites: PAD 360 or instructor permission. Public and nonprofit management and organizational theories, policies and practices. History of public and nonprofit management systems; public and nonprofit organizational structures; distinctions and similarities in mission, values, and cultures. Effective management and leadership in public and nonprofit organizations; the political environment, power, and policy affecting public and nonprofit management; organizational goals and effectiveness; planning, strategy and decision making in the public and nonprofit sectors.

PAD 488 INTERNSHIP

1-15, 0/0

Field experiences that supplement departmental academic offerings; geared to students' interests. Faculty intern supervisor and department chair permission necessary.

PAD 495 SPECIAL PROJECT

1-3, 0/0

PAD 499 INDEPENDENT STUDY

3-12, 0/0

Career, Technical, and Science Education (BME, CTE, FCS, SED, TED)

Business & Marketing Education (BME)

BME 301 PRINCIPLES OF BUSINESS/MARKETING AND TECHNOLOGY EDUCATION

3, 3/0

Introduction to the teaching of occupational education courses in public schools; principles, philosophy, and objectives; historical development of occupational education and the development of current issues for an occupational education program. Offered every semester.

Equivalent Courses: CTE 301, FCS 301

BME 302 CURRICULUM AND EVALUATION IN BUSINESS/MARKETING AND TECHNOLOGY EDUCATION

3, 3/0

Introduction to the curriculum and evaluation in business/marketing and technology education. State curriculum and standards, lesson planning, student learning, and curriculum evaluation. Offered every semester.

Equivalent Courses: CTE 302, FCS 302

BME 303 INSTRUCTIONAL STRATEGIES IN BUSINESS AND MARKETING

3, 3/0

Instructional strategies dealing with classroom management, classroom environment, and educational technologies. 100 hours of field experience prior to student teaching required. Offered every semester.

Equivalent Course: FCS 303

BME 411 APPLIED TEACHING METHODS IN BUSINESS/MARKETING

3, 3/0

Prerequisites: BME/CTE/FCS 301 and BME/CTE/FCS 302. Basic principles and methods of teaching business and marketing subjects. Prepares the student to effectively teach subjects in this area. Offered every semester.

Equivalent Courses: CTE 404, FCS 404

BME 415 STUDENT TEACHING IN BUSINESS EDUCATION I

6, 0/0; IN23, RE23

Prerequisites: Senior standing; completion of business core area and BME 411; 2.5 cumulative average in major subject area; 2.0 cumulative average in total program; C or better in CWP 101 and CWP 101; satisfactory completion of (or exemption from) prerequisite EXE 100 Student Speech Clinic if referred. Full-time teaching in a public school for one semester under the supervision of a master teacher and a college supervisor. Offered every semester.

Equivalent Course: FCS 415

BME 416 STUDENT TEACHING IN BUSINESS EDUCATION

6, 0/0; IN23, RE23

Prerequisites: Senior standing; completion of business core area and BME 411; 2.5 cumulative average in major subject area; 2.0 cumulative average in total program; C or better in CWP 101 and CWP 101; satisfactory completion of (or exemption from) prerequisite EXE 100 Student Speech Clinic if referred. Full-time teaching in a public school for one semester under the supervision of a master teacher and a college supervisor. Offered every semester.

Equivalent Course: FCS 416

BME 495 SPECIAL PROJECT

3, 0/0

BME 499 INDEPENDENT STUDY

3-12, 0/0

Offered every semester.

Career & Technical Education (CTE)

CTE 100 COMPREHENSIVE THEORETICAL TRADE OR TECHNICAL SKILLS

15, 0/0

Credit is awarded for satisfactory completion of trade theory. Assessment of competency is based on verification of four years' employment in a trade normally taught in vocational high school programs. Graduates of community college technical programs in appropriate trades are required to verify two years' employment. The National Occupational Competency Testing Institute Examination and/or other assessment techniques may be used to determine credit of 15 semester hours. Offered every semester.

CTE 200 COMPREHENSIVE TRADE OR TECHNICAL PERFORMANCE SKILLS

15, 0/0

Credit is awarded for satisfactory completion of trade theory. Assessment of competency is based on verification of four years' employment in a trade normally taught in vocational high school programs. Graduates of community college technical programs in appropriate trades are required to verify two years' employment. The National Occupational Competency Testing Institute Examination and/or other assessment techniques may be used to determine credit of 15 semester hours. Offered every semester.

CTE 301 FOUNDATIONS OF CAREER AND TECHNICAL EDUCATION

3, 3/0

Introduction to the teaching of occupational education courses in public schools; principles, philosophy, and objectives; historical development of occupational education and the development of current issues for an occupational education program. Offered every semester.

Equivalent Courses: BME 301, FCS 301

CTE 302 CURRICULUM AND EVALUATION IN CAREER AND TECHNICAL EDUCATION

3, 3/0; IN23, RE23

Introduction to the curriculum and evaluation in business/marketing and technology education. State curriculum and standards, lesson planning, student learning, and curriculum evaluation. Offered every semester.

Equivalent Courses: BME 302, FCS 302

CTE 303 INSTRUCTIONAL STRATEGIES IN CAREER AND TECHNICAL EDUCATION

3, 3/0

Instructional strategies dealing with classroom management, classroom environment, and educational technologies. 100 hours of field experience prior to student teaching required. Offered every semester.

Equivalent Courses: BME 303, FCS 303

CTE 306 CLASSROOM/LABORATORY MANAGEMENT

3, 3/0

Organizational factors that influence the success of career-technical education teachers. Includes facility planning, redesign, and managerial phases of the career-technical teacher's responsibilities. Offered fall only.

CTE 311 CAREER MENTORING

3, 1/2

Prerequisite: Enrollment in CTE, BME, TED or FACS majors or permission of the chair. Overview of career awareness for exploration, guidance, and workplace skills. Classroom pedagogy and field experiences provide mentoring opportunities with middle school and high school students or with adults seeking retraining for new career choices. Majors obtain teaching skills while providing service to the community at off-campus locations during class times. Includes demonstrations of various trade skills and career fairs. Classes meet on and off campus. Offered every semester.

CTE 350 SCHOOL AND COMMUNITY RELATIONSHIP FIELD EXPERIENCE

3, 1/2

Prerequisite: CTE major. Overview of school and community relations. Classroom and field experience involves students in the concepts of planning and executing a successful vocational-career promotional event. Students are placed off campus at community sites and/or middle school or high school locations. Thirty hours of internships and promotional events at off-site locations are required. Offered spring only.

CTE 402 ASSESSMENT IN CAREER AND TECHNICAL EDUCATION

3, 3/0

Prerequisite: CTE 302. Overview of assessment in classroom, laboratory, internship, and clinical situations. Principles of effective assessment include different approaches and methods of assessment, evaluation, and testing techniques. Addresses portfolio development, reflective journals, authentic and performance assessment, and objective testing as applicable to career and technical subjects. Offered fall only.

CTE 404 METHODS OF TEACHING CAREER AND TECHNICAL SUBJECTS

3, 3/0; IN23, RE23

Prerequisites: BME/CTE/FCS 301 and BME/CTE/FCS 302. Basic principles and methods of teaching business and marketing subjects. Prepares the student to effectively teach subjects in this area. Offered every semester.

Equivalent Courses: BME 411, FCS 404

CTE 413 STUDENT TEACHING CAREER AND TECHNICAL EDUCATION

3-6, 0/3; IN23, RE23

Prerequisites: CTE 302, CTE 404, and NOCTI Trade Examination or equivalent. Career and technical education major and completion of at least 18 credits in CTE required courses. Supervised teaching in career-technical classes in selected career-technical schools, in various types of schools and communities. Three hundred hours of practice teaching in off-site campus programs required.

Conferences and reports based upon teaching assignments are required. Seminar discussions consist of professional problems of the beginning teacher. Students should be prepared to accept assignment at any school designated by the student-teacher coordinator.

Student-teaching assignments are located throughout Western New York. Offered every semester.

CTE 415 PROFESSIONAL DEVELOPMENT SEMINAR

3, 3/0

Prerequisite: Successful completion of the basic writing requirement. Synthesis of pedagogical courses and practice-teaching experience. Analysis of problems that confront teachers. Offered fall only.

CTE 421 CAREER AND TECHNICAL EDUCATION FOR STUDENTS WITH SPECIAL NEEDS

3, 3/0

Planning, coordinating, and delivering programs for individuals with special needs found in secondary and postsecondary schools, rehabilitation centers, and correctional facilities. Development of methods and techniques for teaching and assessing the work potential of individuals with special needs. Development of self-help devices/adaptive equipment. Identifying instructional resources. Offered every semester.

CTE 435 CURRICULAR PROBLEMS OF CAREER AND TECHNICAL SCHOOLS

3, 3/0

Prerequisites: CTE 302 and CTE 404. Basic principles and foundations of curriculum development for trade and technical programs. Technological, sociological, and educational factors that effect change in curriculum. The integral parts of a curriculum and newer concepts of curriculum programs and materials. Emphasis on curricular problems of teachers and administrators in their individual schools. Offered alternate years.

CTE 450 ORGANIZATION OF DIVERSIFIED COOPERATIVE WORK-STUDY PROGRAMS

3, 0/0

CTE 455 OPERATION OF DIVERSIFIED COOPERATIVE WORK-STUDY PROGRAMS

3, 0/0

CTE 479 POSTSECONDARY INSTRUCTION PRACTICUM

6, 1/5

Prerequisites: CTE 302, CTE 404, and NOCTI Trade Examination or equivalent; career and technical education major; completion of at least 18 credit hours in required CTE courses. Part- or full-time teaching assignment in a post secondary-level, career-technical education program. Develops and refines skills and understandings of the teaching-learning process as it relates to career-technical teaching, under the guidance and supervision of college faculty. S or U grade only. Offered alternate years.

CTE 489 INDUSTRIAL TRAINER PRACTICUM

6, 3/3

Prerequisites: CTE 302, CTE 404, and NOCTI Trade Examination or equivalent; career and technical education major; completion of at least 18 credit hours in CTE required courses; CTE program coordinator approval. Part- or full-time assignment in a business or industrial training program. Develops and refines skills and understanding of occupational training practices, under the guidance and supervision of business and industry training personnel and college faculty. S or U grade only. Offered alternate years.

CTE 492 OCCUPATIONAL PRACTICUM

6, 3/3

Prerequisites: CTE 100 and CTE 200 (NOCTI Trade Examination) or equivalent; career and technical education major. Advanced specialization development for students with prior occupational experience such as on-the-job upgrading, occupational workshops, and in-service institutes. May be taken for credit more than once by advisement. Offered alternate years.

CTE 495 SPECIAL PROJECT

3, 0/0

Offered alternate years.

CTE 497 SPECIAL WORKSHOP

3, 0/0

Offered summer only.

CTE 499 INDEPENDENT STUDY

3-30, 0/0

Offered every summer.

Family & Consumer Sciences Edu (FCS)

FCS 301 PRINCIPLES OF BUSINESS/MARKETING AND TECHNOLOGY EDUCATION

3, 3/0

Introduction to the teaching of occupational education courses in public schools; principles, philosophy, and objectives; historical development of occupational education and the development of current issues for an occupational education program. Offered every semester.

Equivalent Courses: BME 301, CTE 301

FCS 302 CURRICULUM AND EVALUATION IN BUSINESS/MARKETING AND TECHNOLOGY EDUCATION

3, 3/0

Introduction to the curriculum and evaluation in business/marketing and technology education. State curriculum and standards, lesson planning, student learning, and curriculum evaluation. Offered every semester.

Equivalent Courses: BME 302, CTE 302

FCS 303 INSTRUCTIONAL STRATEGIES IN BUSINESS AND MARKETING

3, 3/0

Instructional strategies dealing with classroom management, classroom environment, and educational technologies. 100 hours of field experience prior to student teaching required. Offered every semester.

Equivalent Course: BME 303

FCS 404 APPLIED TEACHING METHODS IN BUSINESS/MARKETING

3, 3/0

Prerequisites: BME/CTE/FCS 301 and BME/CTE/FCS 302. Basic principles and methods of teaching business and marketing subjects. Prepares the student to effectively teach subjects in this area. Offered every semester.

Equivalent Courses: BME 411, CTE 404

FCS 415 STUDENT TEACHING I

6, 0/0; IN23, RE23

Prerequisites: Senior standing; completion of business core area and BME 411; 2.5 cumulative average in major subject area; 2.0 cumulative average in total program; C or better in CWP 101 and CWP 101; satisfactory completion of (or exemption from) prerequisite EXE 100 Student Speech Clinic if referred. Full-time teaching in a public school for one semester under the supervision of a master teacher and a college supervisor. Offered every semester.

Equivalent Course: BME 415

FCS 416 STUDENT TEACHING II

6, 0/0; IN23, RE23

Prerequisites: Senior standing; completion of business core area and BME 411; 2.5 cumulative average in major subject area; 2.0 cumulative average in total program; C or better in CWP 101 and CWP 101; satisfactory completion of (or exemption from) prerequisite EXE 100 Student Speech Clinic if referred. Full-time teaching in a public school for one semester under the supervision of a master teacher and a college supervisor. Offered every semester.

Equivalent Course: BME 416

FCS 499 INDEPENDENT STUDY
3-30, 0/0

Science Education (SED)

SED 200 FIELD EXPERIENCE IN SECONDARY SCIENCE EDUCATION
3, 2/2

Classroom and field experience designed to help students make a better-informed decision if they are contemplating a career in secondary science education. A 30-hour field component is required for each student. Offered occasionally.
Equivalent Course: MED 200

SED 307 TECHNIQUES FOR TEACHING LABORATORY ACTIVITIES IN THE SECONDARY SCIENCE CLASSROOM
3, 0/0
SED 307
Equivalent Course: MED 307

SED 311 PROBLEM SOLVING IN PHYSICAL SCIENCE
3, 3/0

Prerequisites: A college-level course in a science other than biology, or permission of instructor. Inquiry-based course for elementary preservice candidates. Investigation of the physical sciences through problem solving, laboratory activities, simulations, and explorations. Option in elementary education science concentration. Offered alternate years.

SED 312 PROBLEM SOLVING IN LIFE SCIENCE
3, 3/0

Prerequisites: A college-level course in a science other than biology, or permission of instructor. Inquiry-based course for elementary pre-service candidates. Investigation of the life sciences through problem solving, laboratory activities, simulations, and explorations. Option in elementary education science concentration. Offered alternate years.

SED 313 PROBLEM SOLVING IN EARTH SCIENCE
3, 3/0

Prerequisites: A college-level course in a science other than biology, or permission of instructor. Inquiry-based course for elementary pre-service candidates. Investigation of the earth sciences through problem solving, laboratory activities, simulations, and explorations. Option in elementary education science concentration. Offered fall semesters.

SED 316 TEACHING READING IN THE SECOND LANGUAGE IN MIDDLE SCHOOLS
3, 3/0

SED 323 SCI AS INQUIRY
3, 3/0

The procedures of science as a search for knowledge of natural phenomena; comparison with other methods of inquiry; implications for nonscientists. Option in elementary education science concentration. Offered occasionally.

SED 335 OUTDOOR SCIENCE EDUCATION
3, 2/2

Prerequisites: A college-level course in a science other than biology, or permission of instructor. Interdisciplinary approach to outdoor science education; basic concepts of natural history in classroom and field; extended field trips to the college camp. Offered occasionally.

SED 445 LITERACY FOR TEACHING SCIENCE
3, 2/2

Prerequisites: Instructor permission. Study of literacy related to secondary science. Candidates will practice promotion of literacy, conduct an action research project on identifying literacy levels of students, and plan literacy activities based on data collection. Offered Every Semester.

Technology Education (TED)

TED 100 INTRODUCTION TO TECHNOLOGY EDUCATION
3, 3/0

Prerequisite: Major status. An introduction to technology education for students considering a career as a public school technology teacher; provides information relating to core issues such as New York State Learning Standards, contemporary ideas and practices in the technology classroom; introduces and prepares students for the field service requirement. Offered Every Semester.

TED 101 RAPID VISUALIZATION

3, 2/3

Basic conceptual and technical skills in technical drawing and illustration; basic drawing techniques from sketching and rapid visualization to rendering and 3-D computer modeling; lectures, demonstration, and practice; intended as a technology foundation course and as a pre-mechanical drawing and pre-CAD course. Offered fall only.

TED 123 PRINCIPLES OF MANUFACTURING

3, 2/3

Operative principles common to the majority of manufacturing industries; research and development, manufacturing, organization and management; industrial relations; engineering; production; labor; financial control; marketing; quality control. Presentations by leading industrialists. Offered spring only.

TED 253 FUNDAMENTALS OF BOAT BUILDING

3, 0/6

Prerequisite: DES 105. Fundamentals of boat design, lofting, and construction through lectures, demonstrations, and the construction of a small boat. Offered occasionally.

Equivalent Course: TEC 253

TED 300 CONSTRUCTION SYSTEMS

3, 2/3

Exploration of habitable structures through hands-on laboratory experiences. For technology education majors and those who wish to meet certification requirements of New York for teaching technology education in the state's public schools. Offered fall only.

TED 320 HISTORY AND THEORY OF WATERCRAFT DESIGN

3, 3/0

Prerequisite: DES 215 or permission of instructor. A survey of the history and theory of naval architecture and watercraft design with special attention to the development of design solutions within specific cultural contexts; special emphasis on American small craft and local traditional designs. Offered occasionally.

TED 349 COMMUNICATIONS SYSTEMS

3, 2/3

Review of communication techniques throughout history; current techniques and modern communications programs and materials; broad spectrum of experiences with conversion and transfer of information from one form to another. Offered fall only.

TED 360 TECHNOLOGY EDUCATION METHODS AND EVALUATION

3, 3/0

Prerequisites: OEC 301, OEC 302, and EDF 303. Basic principles and methods of teaching technology education subjects; strategies utilized in planning for instruction; strategies utilized in evaluating students, course content, and overall program; teaching and evaluating students with special needs; preparation of instructional materials. Offered Every Semester.

TED 361 TRANSPORTATION SYSTEMS

3, 2/3

Energy/transportation systems focusing on the moving of people, materials, and products; types of transportation vehicles, energy and power, controls, careers; the effects of transportation systems on the environment and society. Course meets guidelines of the national and state professional associations regarding the systems approach to the technology education discipline. Offered spring only.

TED 450 STUDENT TEACHING IN TECHNOLOGY EDUCATION

6, 0/0; IN23, RE23

Prerequisites: CWP 102, BME/CTE 301, BME/CTE 302, EDF 303,, TED 360, EXE 372, EDU 416, minimum cumulative GPA of 2.5. Students must have completed 105 credit hours, including all 33 credit hours of approved technology core courses. Full-time assignment in a junior and/or senior high school as a student-teaching intern working with a supervising teacher and a college supervisor; seminars on campus and in public schools to study teaching techniques, organization, management, oral communication

delivery and other aspects of teaching technology education; guided full-time teaching experience including the use of electronic recording to analyze teaching; participation in school and professional activities. Offered Every Semester.

TED 451 STUDENT TEACHING IN TECHNOLOGY EDUCATION II

6, 0/0; IN23, RE23

Prerequisites: EDF 303, BME 301 or CTE 301, BME 302 or CTE 302, and TED 360, EXE 372, EDU 416; minimum GPA of 2.5 in major coursework. Full-time assignment in a senior high school as a student-teaching intern working with a supervising teacher and a college supervisor; seminars on campus and in public schools to study teaching techniques, organization, management, and other aspects of teaching; full-time teaching experience including the use of videotape to analyze instructional performance; participation in schools and professional activities. Students must have completed a minimum of 105 credit hours, including all 33 credit hours of required technology core courses. Students must be prepared to accept assignment at any facility and may not enroll in any other college courses. Offered Every Semester.

TED 453 WOOD/EPOXY BOATBUILDING

3, 2/0

Prerequisite: DES 251. Theory and application of wood/epoxy boatbuilding materials and techniques through the construction of a wood/epoxy skiff. Offered occasionally.

TED 488 INTERNSHIP

1-12, 0/0

TED 495 SPECIAL PROJECT

1-3, 0/0

TED 497 WORKSHOP

3, 3/2

Offered occasionally.

TED 499 INDEPENDENT STUDY

3-12, 0/0

Chemistry (CHE, FOR)

CHE 100 CHEMISTRY AND SOCIETY

3, 3/0; NS23

Non-mathematical approach to the study of matter. Presentation of the fundamentals of chemistry followed by socially relevant topics such as toxic waste management, environmental pollution, space technology, agricultural chemistry, chemistry of consumer products, food processing, polymers, and plastics. Offered every semester.

CHE 110 INTRODUCTORY CHEMISTRY

3, 3/0

Preparation for college-level chemistry with an emphasis on mathematical methods used in chemistry. Introduction to atomic structure, atomic and formula mass, chemical equations, stoichiometry, solution concentration, acid-base chemistry. Mathematical methods include: the metric system, significant figures, dimensional analysis, conversion factors, word problems, quadratic equations, logarithms. Recommended for students who have not taken high school chemistry or need to develop the math skills required for CHE 101 and CHE 111. Course offered every semester.

CHE 111 FUNDAMENTALS OF CHEMISTRY I

3, 3/0; NS23

Prerequisites: MAT 114 or a higher level math with a minimum grade of C, SAT math with a minimum of 480, or ACT composite score with a minimum of 18; Corequisite: CHE 113. Fundamental principles of chemistry covering the nature, structure and properties of the atom, chemical bonding, geometry of molecules, the periodic table, gases, stoichiometry, chemical reactions, thermochemistry, and solution chemistry. Offered every semester.

CHE 112 FUNDAMENTALS OF CHEMISTRY II

3, 3/0

Prerequisites: CHE 111. Co-requisite CHE 114. Continuation of Fundamentals of Chemistry I. Liquids and solids, phase transitions, mixtures, colligative properties, chemical kinetics, chemical equilibria, chemical thermodynamics, electrochemistry, general properties of elements, and complex ion formation. Offered every semester.

CHE 113 LABORATORY FOR FUNDAMENTALS OF CHEMISTRY I

1, 0/3

Corequisites: CHE 111. Laboratory-based exploration of the basic chemical concepts taught in Fundamentals of Chemistry I (CHE 111). Experiments exploring the basic principles of chemical bonding, geometry of molecules, gases, stoichiometry, solution chemistry, and enthalpy. Lab safety, use of graphing software, and introduction to basic laboratory equipment. Offered every semester.

CHE 114 LABORATORY FOR FUNDAMENTALS OF CHEMISTRY II

1, 0/3

Prerequisites: CHE 111 and CHE 113; co-requisite: CHE 112. Laboratory-based exploration of the basic chemical concepts taught in Fundamentals of Chemistry II (CHE 112). Experiments exploring the phases of matter, physical properties of solutions, kinetics, thermodynamics, equilibrium, redox reactions, and basic electrochemistry. Safe laboratory practices and basic laboratory skills, introduction to basic spectrophotometry and the use of pH meters. Offered every semester.

CHE 189 TOPIC COURSE

1-3, 0/0

Prerequisite: CHE 100 or CHE 101 or CHE 111. Current topics in Chemistry. Offered occasionally.

CHE 201 ORGANIC CHEMISTRY I

3, 3/0

Prerequisite: CHE 112. Chemistry of organic compounds. Chemical bonding and structures of organic molecules. Reactivity and stability of organic compounds. Organic reaction mechanisms. Elementary syntheses of organic molecules. Offered every semester.

CHE 202 ORGANIC CHEMISTRY II

3, 3/0

Prerequisite: CHE 201. Continuation of CHE 201. Reactions and mechanisms of organic functional groups, such as alcohols, ethers, aldehydes, ketones, carboxylic acids, acid derivatives, and aromatic compounds. Identifications of organic compounds using spectroscopic methods (UV, IR, NMR, and MS). Organic reaction mechanisms to predict reaction outcomes. Syntheses of organic molecules. Offered annually in the spring semester.

CHE 203 ORGANIC CHEMISTRY LABORATORY I

1, 0/3

Prerequisite: CHE 112 and CHE 114; Prerequisite or Concurrent registration: CHE 201. Laboratory techniques in organic chemistry including distillation, crystallization, extraction, sublimation, and chromatography are learned by application to the synthesis and purification of organic compounds. Experiments chosen from a variety of possible topics such as isolation of natural products, separation of mixtures, and synthesis. Offered every semester.

CHE 204 ORGANIC CHEMISTRY LABORATORY II

1, 0/3

Prerequisite: CHE 203. Prerequisite or concurrent registration: CHE 202. Continuation of CHE 203. Synthesis, isolation, purification, and identification of organic compounds with emphasis placed on spectroscopic methods of structure determination. Experiments chosen from a variety of possible topics such as multistep synthesis, mechanistic studies, and qualitative organic analysis. Offered every semester.

CHE 295 INTRODUCTORY RESEARCH IN CHEMISTRY

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

CHE 301 ANALYTICAL CHEMISTRY

4, 3/3

Prerequisites: CHE 112 and CHE 114. Fundamental principles and laboratory applications of analytical chemistry. Elementary statistics, chemical equilibrium, acids and bases, redox reactions, gravimetry, separations, spectrophotometry, and basic

electrochemistry. Laboratory experiences including acquisition of hands-on analytical laboratory skills and guided experiments selected from the course topics. Offered annually.

CHE 305 PHYSICAL CHEMISTRY I

3, 3/0

Prerequisites: CHE 202, CHE 301, PHY 112, and, MAT 263 (or concurrently), or, instructor's permission. A study of the fundamental concepts in thermodynamics and equilibria of matter and polymer solutions. Topics include: zero, first, second and third laws of thermodynamics, thermochemistry, chemical equilibrium, phase diagrams and the equilibrium of phase change, ideal vs. real solutions, introduction to polymer science, thermodynamic analysis of polymeric solutions. Offered annually in the fall semester.

CHE 306 PHYSICAL CHEMISTRY II

3, 3/0

Prerequisite: CHE 305, and MAT 263. The second semester of a two-semester sequence in physical chemistry. Topics include quantum chemistry, atomic and molecular structure, molecular and atomic spectroscopies, kinetic theory of gases, and kinetics. Offered spring only.

CHE 307 PHYSICAL CHEMISTRY LABORATORY I

1, 0/3

Prerequisites: CWP 102, CHE 204, CHE 301, and CHE 305 or concurrent registration. Thermodynamic studies on the properties of solids, liquids and gases, including polymer solutions, using modern techniques. Laboratory experiments include: treatment and analysis of raw data, morphology of polymers, thermogravimetric analysis of solids, heat of combustion of solids, heat of reactions' solutions, heat of sorption of gases into polymers, heat of evaporation of liquids, heat capacities of gases and solid-liquid phase equilibrium. Utilizing the literature and practice in recording and disseminating data collected using an electronic notebook, organizing and writing a scientific report. Offered annually in the fall semester.

CHE 308 PHYSICAL CHEMISTRY LABORATORY II

1, 0/3

Prerequisites: CHE 305 and CHE 307 and MAT 263 AND CWP 102 or ENG 102. A laboratory study of principles of physical chemistry covered in CHE 306. Topics include determination of rate laws; ultraviolet, visible, and infrared spectroscopy; and photochemistry. Data analysis using statistical methods and error analysis is required. Offered spring only.

CHE 310 LITERATURE OF CHEMISTRY

1, 1/0

Prerequisite or Concurrent Registration: CHE 201 or CHE 321. Sources of chemical literature. Experiences in chemical information searching and retrieval, including examples of computer searching. Offered fall only.

CHE 315 ENVIRONMENTAL CHEMISTRY AND TECHNOLOGY

3, 3/0

Prerequisite: CHE 112 or CHE 102. Discussion of chemical reactions in air, water, and soil. Effect of human activities on the chemical environment. Alternative energy sources, pollution-control methods and devices. Offered occasionally.

CHE 321 PRINCIPLES OF ORGANIC CHEMISTRY

4, 3/3

Prerequisite: CHE 102 or CHE 112/CHE 114. Survey of organic chemistry. Structural isomerism, acid-base and mode of hybridization of carbon in organic compounds. Saturated, unsaturated and aromatic hydrocarbons, IUPAC nomenclature, R/S rule, E/Z isomers and Fisher projection. Nucleophiles, electrophiles, nucleophilic substitution and elimination reaction. Reactivity and selectivity of organic compounds. Not open to chemistry/forensic chemistry majors. Offered fall only.

CHE 322 BIOLOGICAL CHEMISTRY

4, 3/3

Prerequisite: CHE 202 or CHE 321. Structure and functions of the substances of biochemical interest found in living systems, supplemented by illustrative laboratory work. Not open to chemistry or forensic chemistry majors. Offered spring only.

CHE 325 MEDICATIONS

3, 3/0

Prerequisites: CHE 201 or CHE 321. Structure and mechanism of action for common medications; history of drug development and discovery; FDA regulations governing drug testing and sale; drug's potential to reach its target via various routes of administration;

underlying causes of common drug-interactions; differences between prescription, over the counter, generic, herbal, and schedule drugs. Formerly CHE 300. Not open to the students who took CHE 300 previously. Offered occasionally.

CHE 327 MEDICINAL PLANT CHEMISTRY

2, 1/2

Prerequisites: CHE 202, CHE 204, CHE 325. Overview of plants as sources of chemical compounds; Classes of natural products from plant sources, their biosynthesis, and their uses in medicine, flavorings, cosmetics, and recreation; Extraction, purification, and analysis of phytochemical compounds from the different parts of plants; Overview of the cannabis and hemp industry and applicable regulations. Offered occasionally.

CHE 331 PRINCIPLES OF PHYSICAL CHEMISTRY

3, 3/0

Prerequisites: CHE 202, MAT 126 or MAT 162, PHY 108 or PHY 112, or permission of instructor. A one-semester survey course exploring the principles of physical chemistry, oriented toward the needs of chemistry majors and students in environmental and health related sciences. Topics include thermodynamics, kinetics, quantum chemistry, and atomic and molecular spectroscopies. Offered spring only.

CHE 360 INTRODUCTION TO INORGANIC CHEMISTRY

3, 3/0

Prerequisites: CHE 202. Descriptive inorganic chemistry of the main group and transition metal elements. Atomic structure and trends in the periodic table. Theories of chemical bonding. Introduction to crystal field, ligand field and molecular orbital theories. Inorganic chemistry of important industrial processes, including metallurgy. Role of metal ions in biological systems. Offered fall only.

CHE 389 TOPIC COURSE

3, 0/0

Current advanced topics in Chemistry. Offered occasionally.

CHE 399 INTERNSHIP IN CHEMISTRY

1-6, 0/0

Prerequisite: Permission of instructor. Hands on experience in approved research and/or development project of current interest to local chemical industry. Offered every semester.

CHE 403 INSTRUMENTAL ANALYSIS

3, 3/0

Prerequisites: CHE 301; CHE 331 or CHE 306 recommended. Principles of modern analytical instruments and their applications for chemical analysis. Statistical treatment of data, basic electronics and signal processing, basic optics, molecular and atomic spectroscopy, chromatography and separations, electrochemical methods, and mass spectrometry. Offered spring semester.

CHE 404 INSTRUMENTAL ANALYSIS LAB

2, 0/6

Prerequisite: CHE 403 and Instructor Permission. Laboratory course based on modern analytical instruments used in industry and research labs. Principles and practical applications of analytical instruments. Instrumental analysis lab techniques. Analysis of experimental data and errors. Offered every fall semester.

CHE 406 ANALYTICAL TOXICOLOGY

3, 2/3

Prerequisites: CHE 202, CHE 403. Introductory analytical toxicology for pharmaceutical, forensic, and clinical analysis; Exploration of the main categories of inorganic and organic toxins; sample collection and treatment; chromatographic separation; spectroscopic and mass spectral determination of various toxic compounds and plant products in clinical, forensic, and environmental samples. Offered every other spring.

CHE 427 CANNABIS ANALYSIS

2, 1/2

Prerequisite: CHE 404. Overview of instrumental methods for the chemical analysis of target analytes in the cannabis or cannabis-derived products. Use of laboratory analytical instruments for the separation, identification, and quantification of chemicals for the potency test and quality control of cannabis or its products. Development and validation of analytical methods. Offered spring semester.

CHE 462 ADVANCED INORGANIC CHEMISTRY

3, 2/3

Prerequisites: CHE 202, CHE 204, CHE 305, CHE 360, and CHE 306 or concurrent. Physical inorganic and transition metal chemistry. Development of symmetry and its applications to the spectroscopy of inorganic systems. Crystal field, ligand field and molecular orbital theories. Organometallic chemistry, homogenous and heterogeneous catalysis. Metal ions in bioinorganic systems, inorganic materials. Advanced synthetic methods and methods of characterization. Offered spring only.

CHE 465 INTERGRATED PHYSICAL AND INORGANIC CHEMISTRY LABORATORY

2, 0/6

Prerequisite: CHE 360 (or concurrently) AND CHE 331 (or concurrently). Introduction to the principles of physical and inorganic chemistry lab. Advanced synthetic and characterization methods for transition metal complexes, reactions involving polymers, thermogravimetric analysis of solids, kinetic experiments, and computational calculations. Utilizing literature resources, recording and disseminating data, and inquiry-driven research projects, with a focus on topics like heterogeneous catalysis and green chemistry. Offered every spring.

CHE 470 BIOCHEMISTRY I

3, 3/0

Prerequisites: CHE 202; BIO 211 recommended. Study of the molecular structure and function of the four major classes of biomolecules: proteins, nucleic acids, lipids, and carbohydrates. Examination of enzyme kinetics, mechanism, and regulation. Examination of the molecular nature of DNA replication and an introduction to recombinant DNA technology. Offered fall only.

CHE 471 BIOCHEMICAL TECHNIQUES

2, 1/3; IN23, RE23

Prerequisites: CHE 204 and CHE 301. Prerequisite or concurrent registration: CHE 470. Techniques used in the collection and analysis of experimental data on biochemical systems. Participation in laboratory experiments illustrating biochemical techniques and general biochemical principles. Practice in recording and disseminating data collected in a modern biochemistry laboratory, including: record keeping via a laboratory notebook, organizing and writing a scientific report, and giving an oral presentation on scientific results. Offered fall only.

CHE 472 BIOCHEMISTRY II

3, 3/0

Prerequisites: CHE 202, CHE 470. A continuation of CHE 470 Biochemistry I. Examination of metabolic processes in living systems. Relationship of metabolic enzyme activity to cellular control. The chemistry of genetic information, storage and expression. Offered spring only.

CHE 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Faculty project adviser permission. Offered every semester.

CHE 497 CHEMISTRY MICROCOURSE

1-3, 1/0

Examination of significant disciplinary issues, topics, or practices. Offered occasionally.

Equivalent Course: FOR 497

CHE 499 INDEPENDENT STUDY

2-12, 0/0

Prerequisite: Faculty project adviser permission. Offered every semester.

Forensic Science (FOR)

FOR 122 SCIENTIFIC CRIMINAL EVIDENCE ANALYSIS

3, 3/0

Scientific techniques that have been adapted and applied to the detection and investigation of crimes. Collection techniques, analytical processes, and value of scientific evidence from the point of view of forensic scientists. Different disciplines, specialties, and careers available in forensic science. Offered spring only.

FOR 189 TOPIC COURSE

1-3, 1/0

Current topics in Forensic Science. Offered occasionally.

FOR 295 INTRODUCTORY RESEARCH IN FORENSIC SCIENCE

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

FOR 312 CHEMISTRY AND CRIMINALISTICS

4, 3/3

Prerequisites: FOR 122, MAT 311 and CHE 201. Chemistry as an investigative aid in the process of criminal justice. Basic chemical, physical, and microscopic techniques used in criminal investigations. Relevant laws and legal issues that impact on scientific evidence. Professional practice and ethics in the field of forensic science. The overall function of the criminalist from the gathering of evidence to the final presentation of expert testimony. Offered fall only.

FOR 389 TOPIC COURSE

1-3, 1/0

Current advanced topics in Forensic Science. Offered occasionally.

FOR 410 PROFESSIONAL PRACTICES IN FORENSIC SCIENCE

3, 3/0

Prerequisite: FOR 312. Examination of aspects of forensic lab practice required for a successful career as a forensic scientist. Introduction to the working environment of forensic laboratories; management's expectations regarding professional and ethical behavior; time management; workflow processes; court testimony. Offered every other spring.

FOR 412 INTERNSHIP IN CRIMINALISTICS

3, 0/0

Prerequisites: FOR 312, CHE 403, permission of instructor, and senior status. Field experience in a forensic laboratory involving routine and research work in forensic chemistry. Note: Police laboratories sometimes require background checks and/or drug screens prior to placement. While not required by the college, these can affect students' abilities to complete the program. Offered every semester.

FOR 414 FORENSIC CHEMISTRY LABORATORY

3, 2/3

Prerequisites: FOR 312, CHE 403 and CHE 404; BIO 303 or BIO 350 (or concurrently). Instruction and laboratory experiences in a wide range of forensic chemistry topics, including experiments in DNA for human identification, identification of illicit drugs, determination of blood alcohol, materials analysis, and arson. Students also receive instruction on the practice of presenting scientific evidence in a courtroom setting. Offered spring only.

FOR 416 CHEMICAL MICROSCOPY

3, 2/3

Prerequisites: FOR 312 and PHY 112. Introductory optical and chemical microscopy for forensic analysis; fundamental theory of microscopy; physical properties of materials; basic topics in optics; operation, varieties, and capabilities of optical and chemical microscopes; applications in analysis of physical features and chemical compositions of trace evidence. Offered every other spring.

FOR 475 CAPSTONE RESEARCH IN FORENSIC CHEMISTRY

3, 1/6

Prerequisites: FOR 312 and CHE 404. Forensic chemistry research on a topic agreed upon by the faculty and student. Creation of a written research plan for investigation of the topic through either laboratory or field research methods. Collection, documentation, and analysis of research data. Preparation of a formal research report and presentation at a conference or seminar. Offered occasionally.

FOR 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Faculty project adviser permission. Offered every semester.

FOR 497 FORENSIC MICROCOURSE

1-3, 1/0

Examination of significant disciplinary issues, topics, or practices. Offered occasionally.
Equivalent Course: CHE 497

FOR 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisite: Faculty project adviser permission. Offered every semester.

College Writing Program (CWP)

CWP 099 DEVELOPMENTAL COLLEGE WRITING

0, 3/0

A skill-building course designed to reinforce sentence and paragraph structure through emphasis on structure, unity, and coherence. Appropriate for both native students and non-native English-speaking students needing skill enhancement in Standard American English. Offered every semester.

CWP 101 COLLEGE WRITING I

3, 3/0; BC23

Introduction to academic discourse practices and conventions, including the development of composing processes and skills that will prepare individuals for success as university students and citizens. Emphasis on critical reading and inquiry, writing for a variety of rhetorical situations, and effective academic writing and research processes. Student must earn a minimum grade of C. Offered every semester.

CWP 102 ARGUMENTATION AND RESEARCH

3, 3/0; BC23

Prerequisite: CWP 101 with a minimum grade of C or its equivalent. (See College Writing Program Office, Ketchum Hall for placement procedures.) Course focusing on development of academic communication and research skills. Written and oral assignments emphasize argumentation and persuasion, advanced rhetorical strategies, analysis/synthesis, and critical thinking. Student must earn a minimum grade of C. Offered every semester.

Communication (COM, SPC)

Communication (COM)

COM 100 MEDIA LITERACY

3, 3/0; HU23

Role of mass media in the lives of individuals and society; exploration of development structure and technology of media, as well as social, economic, ethical, and related issues; focuses on roles of both consumers and producers of media. Offered every semester and summer.

COM 189 TOPIC COURSE

3, 0/0

Current topics in communication. Offered occasionally.

COM 210 INTRODUCTION TO MEDIA WRITING

3, 2/2

Prerequisites: CWP 102 and COM 100 or SPC 103. Writing lab with practice in organizing and writing for print and digital media; introduction to news, feature, and advocacy writing; application to journalism, public relations, and advertising. Offered every semester.

COM 212 INTRODUCTION TO DIGITAL STORYTELLING

3, 3/0

Introduction to digital storytelling in media production; hands-on practice in scriptwriting, production organization, camera techniques, storytelling approaches, aesthetics, and fundamentals of directing. Foundational concepts in film analysis and criticism will be introduced. Offered annually.

COM 215 INTRODUCTION TO VISUAL COMMUNICATION

3, 3/0

Analysis of production and consumption of visual information; exploration of the role of images in the communication process; application to journalism, broadcasting, public relations, advertising, and digital media. Offered every semester and summer.

COM 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

COM 301 PRINCIPLES OF PUBLIC RELATIONS AND ADVERTISING

3, 2/2

Prerequisite: COM 210 and SPC 205. Principles of integrated strategic communication (public relations and advertising); based on model of formative research, strategy, tactics, evaluation, exploration of public relations and advertising via theoretical base, ethical principles, social responsibilities, functions, and professional aspects. Offered every spring.

COM 302 PRINCIPLES OF JOURNALISM

3, 2/2

Prerequisites: CWP 102. Overview of journalism and its historical, ethical, and professional base; focus on news sources, with practice in information-gathering techniques. Offered every spring.

COM 303 WRITING FOR PRINT AND ONLINE JOURNALISM

3, 2/2

Prerequisite: COM 100 or SPC 103; COM 210. Practice in news writing for print and online publications; theory, form, and techniques in writing news; focuses on leads and various types of reporting scenarios; experience in writing under deadline pressure. Offered every fall.

COM 304 WRITING FOR BROADCAST (TV, RADIO, FILM)

3, 2/2

Prerequisites: Completion of CWP 102 or ENG 102 and COM 210 or ENG 190 or TFA 201 with a minimum grade of C. Practice in organizing and writing for radio, audio media, television, and other visual media; writing in various formats, including commercials, promotional announcements, documentaries, corporate video, and narrative scripts. Offered every semester and summer.

COM 308 PUBLIC RELATIONS WRITING

3, 3/0

Prerequisites: COM 210. Intensive practice in writing for all types of public relations situations; focus on writing for both news media and organizational media for purposes of both information and advocacy. Offered fall semester only.

COM 310 INTERNATIONAL COMMUNICATION

3, 3/0

Prerequisite: Upper-division status. Analysis of the role of international communication in today's global society through a comparative study of the world's press and broadcasting systems. Includes journalistic values of other countries, differing philosophies of broadcasting, and the process of international communication within the framework of North-South, social, economic, and political divisions of the late twentieth century. Offered occasionally.

COM 312 BASIC MEDIA PRODUCTION

3, 2/2

Prerequisites: COM 215 or COM 212 or TFA 201. Exploration of basic concepts and processes of video and audio media production and editing, including hands-on experience in field production, audio recording and both video and audio post production; review of career options. Offered every semester.

COM 314 ADVERTISING COPYWRITING

3, 2/2

Prerequisite: COM 210, COM 301. Intensive practice in planning, writing and evaluating advertising messages; informative and persuasive writing for print, broadcast and online media; advertising creativity, ethics and persuasion theory. Offered annually.

COM 316 SOCIAL MEDIA IN THE COMMUNICATION PROFESSIONS

3, 3/0

Prerequisites: COM 210; COM 212 or COM 215. Overview of social media usage within and on behalf of organizations. Introduction to social media history, ethical, legal, and privacy principles, functions, metrics, and practical application of social media strategies and tactics in the communication professions. Offered every semester.

COM 317 MEDIA MANAGEMENT

3, 3/0

Prerequisites: Sophomore standing, COM 100, and COM 210. Theory and practice in broadcast management for radio and television stations, cable networks, online digital media; focus on structure, budget, sales, regulations, and audience-building aspect of programming and management. Offered annually.

COM 320 INVESTIGATIVE REPORTING FOR MULTI-MEDIA PLATFORMS

3, 2/2

Prerequisite: COM 303 or instructor permission. Analysis of investigative reporting in journalism; review of practice in hands-on investigative reporting techniques; practice in news-gathering research skills and interviewing methods, computer assisted reporting, use of Freedom of Information laws, social media, documents, data collection and evaluation, toward production and publication of investigative reports. Offered every fall semester.

COM 322 COMMUNICATION GRAPHICS

3, 2/2

Prerequisites: COM 212 or COM 215. Theory and practice of information design for organizational and mass media; application for print, digital, and other communication media. Offered every semester and summer.

COM 325 FEATURE WRITING

3, 3/0

Prerequisites: COM 100, SPC 205, COM 210, and COM 212 or COM 215. Theory and advanced practice in writing magazine articles, newspaper features, and similar stories for online publications; writing for specialized audiences; introduction to freelance procedures. Offered every spring.

COM 328 INTERMEDIATE POST PRODUCTION

3, 2/2

Prerequisites: COM 312. Theory, aesthetics and practice of digital post production in video and audio; emphasis on workflow, structure and storytelling techniques for radio, audio, television and film; hands-on experience in digital post production in various genres utilizing digital editing and mixing softwares. Offered every semester.

COM 329 INTERMEDIATE VIDEO PRODUCTION

3, 2/2

Prerequisites: COM 312. Theory, aesthetics and practice of creating digital media productions; emphasis on preproduction and production practices in a variety of genres for audio, radio, television and film; hands on experience in both studio and field production settings; experience working in teams. Offered every semester.

COM 333 RACE, CLASS, GENDER, AND SEXUALITY IN MEDIA

3, 3/0; DI23

Prerequisite: CWP 101. Study of the intersection of race, social class, gender, and sexuality in popular culture and media, through a critical analysis of media representations of these identities. Offered every fall.

Equivalent Course: SPC 333

COM 334 JOURNALISM BROADCAST OPERATION

3, 2/2

Prerequisite: COM 312. Hands-on TV studio broadcasting experience in production of magazine format series for television or web, in conjunction with community partners. Student journalists facilitate production of packages and in studio segments. Introduction to television studio roles and practices. Offered every spring.

COM 335 TALK RADIO/TALK TELEVISION

3, 3/0

Prerequisite: Upper-division status. Introduction to various aspects of talk radio and talk television; differences between news reporters and talk-show hosts; relationship with sales and audience analysis; attention to roles of producer, program director, and promotions. Offered fall only.

COM 336 WEB AND SOCIAL MEDIA PRODUCTION

3, 2/2

Prerequisites: COM 212 or COM 215. Theory and practice of web-based communication and social media; focus on strategy and design as well as writing for web and social media. Offered every semester and summer.

COM 338 DIGITAL AND BROADCAST REPORTING

3, 2/2

Prerequisite: COM 210, COM 302, COM 303, and COM 312. News reporting for electronic media in non-studio locations; practice in reporting, writing, and news presentation under deadline pressure; techniques of using cameras and editing equipment. Offered every fall semester.

COM 339 INTRODUCTION TO MOTION GRAPHICS

3, 2/2

Prerequisites: Junior/Senior Standing. Introduction to digital motion graphic creation and history, including content development, design and motion techniques in title sequences, television graphics, rotoscoping and experimental effects. Conceptual and aesthetic approaches explored in both artistic and industry graphics. Hands-on work on creative graphics and animation projects. Offered every other spring.

COM 340 PHOTOJOURNALISM

3, 2/2

Prerequisite: COM 212 or COM 215. Basic techniques of news photography as practiced by newspapers and magazines, with laboratory and field assignment experience. Note: 35mm camera with meter and full manual controls required. Offered every fall.

COM 341 FUNDRAISING

3, 3/0

Prerequisite: Junior/Senior Standing. Theory and practice of fundraising and organizational philanthropy; focus on planning, organization, management, marketing, and practical approaches that nonprofit organizations use to raise money from private sources. Offered fall only.

COM 347 DIGITAL AND BROADCAST PRODUCING

3, 2/2

Prerequisites: COM 302 and COM 338. News writing and producing for electronic media in studio setting; theory, form, and techniques of writing and presenting news for radio and television; practice in reporting, writing, and presentation under deadline pressure. Offered spring semester.

COM 389 TOPICS COURSE

1-9, 0/0

Offered occasionally.

COM 390 SPECIAL TOPICS: JOURNALISTIC WRITING

3, 3/0

Prerequisites: COM 100, SPC205, COM 210, and COM 212 or COM 215. Specialized reporting; includes extensive study, research, analysis, and journalistic writing on a special topic, such as sports, business, health, technical, or environmental reporting. Offered every spring semester.

COM 392 PUBLIC RELATIONS IN SPORTS

3, 3/0

Prerequisites: COM 210, or admission to sports management minor. Sports public relations and its role in intercollegiate and professional athletics; process and practice of sports information and media relations; topics include writing formats, publications, crisis management, game management, current events, law, and ethics. Offered every fall semester.

COM 400 COMMUNICATION LAW

3, 3/0

Prerequisites: CWP 102. Study of freedom of speech and the press in the United States, particularly the rights and responsibilities of the media and constraints placed on them under law: libel, privacy, journalistic privilege, free press/fair trial, obscenity, advertising law. Offered every spring.

COM 401 APPLIED COMMUNICATION RESEARCH

3, 3/0

Prerequisites: COM 301. Applied research techniques in communication fields; students do original research using content analysis, focus groups, and/or surveys. Offered every semester.

COM 403 DIGITAL SPORTS JOURNALISM

3, 2/2

Prerequisites: COM 312 or instructor permission. Practice in hands-on sports reporting techniques, sports news-gathering research skills, live sporting event video recording, writing, audio and video editing, producing podcasts of sports reports. Offered every semester.

COM 405 ONLINE NEWSROOM

3, 2/1

Prerequisites: COM 303, COM 338. Supervised reporting and editing experience through laboratory practice resulting in online publication; theory and practice in news gathering, writing, editing, capturing visual and audio elements of news stories, working under deadline pressure; emphasis on news judgment, research, accuracy, data gathering, interviewing, editing, diversity, legal issues and journalistic ethics. Offered every fall.

COM 408 PUBLIC RELATIONS CASE STUDIES

3, 3/0

Prerequisite: COM 301. Exploration of various genres of public relations; application of strategic principles, techniques, and programs to real-life organizational problems and opportunities. Offered every other year.

COM 418 CAMPAIGNS IN PUBLIC RELATIONS AND ADVERTISING

3, 2/2

Prerequisite: COM 401. Capstone professional experience in integrated strategic communication based on public relations and advertising; experience in developing campaigns for an actual client, with focus on formative research, strategy, tactics, evaluation, as well as client presentation. Offered every fall.

COM 428 ADVANCED AUDIO PRODUCTION

3, 2/2

Prerequisites: COM 328 and COM 329. Capstone experience in producing audio; emphasis on multi-track recording, mixing, music and voice editing. Offered annually.

COM 429 ADVANCED MULTI-CAMERA STUDIO PRODUCTION

3, 2/2

Prerequisite: COM 329. Capstone experience in studio television production using news and/or other genres requiring advanced skills; requires hands-on practice in studio-based productions. Offered occasionally.

COM 431 ADVANCED FIELD PRODUCTION

3, 2/2

Prerequisites: COM 328 and COM 329. Capstone experience in producing and directing field video productions for on-campus/off-campus viewing; students specialize in field productions in non-studio locations; use of portable cameras, lighting and sound equipment; production in remote studio settings. Offered annually.

COM 432 ADVANCED POST-PRODUCTION

3, 2/2

Prerequisite: COM 328. Capstone experience in video post-production; emphasis on post-production editing and editor's role in visual storytelling; hands-on approach to developing both artistic insight and practical skills in editing. Offered annually.

COM 433 ADVANCED TV DOCUMENTARY PRODUCTION

3, 2/2

Prerequisites: COM 328 and COM 329. Capstone experience in producing and directing television documentaries, with hands-on experience in planning, writing, shooting, and editing; focus on analysis and evaluation of documentary productions. Offered annually.

COM 434 ADVANCED VIDEO PRODUCTION PRACTICUM

3, 2/2

Prerequisites: COM 328 and COM 329. Capstone experience in producing video programming for client- and college-generated on-campus/off-campus uses. Students staff a full production team for public affairs, community service, promotions, entertainment, and other types of programming. Offered occasionally.

COM 435 VISUAL EFFECTS

3, 2/2

Prerequisites: COM 328 and COM 329. Study and creation of computer generated visual effects (VFX), such as green screen, color correction, digital compositing, motion capture and motion tracking. Conceptual and aesthetic approaches to VFX will be explored in artistic and industry examples. Students will plan, produce and direct videos integrating visual effects working in industry-emulating teams. Offered occasionally.

COM 447 COMMUNICATION DATA ANALYTICS

3, 3/0

Prerequisite: Junior or Senior Standing. A communication research, software application, legal and ethical exploration of the use of social media data and open digital data in journalism, media management, marketing, public relations and advertising. Offered spring semester only.

COM 450 COMMUNICATION AND SOCIETY

3, 3/0; IN23, RE23

Prerequisites: COM 100/SPC 103, SPC 205, COM 210, and COM 212 or COM 215, completion of 21 upper-division COM/SPC credits. Role of communication in society; exploration of contemporary issues in mass media and related disciplines; focus on ethical responsibilities of communication professionals. Offered every semester.

COM 488 INTERNSHIP

1-15, 1/0

Prerequisites: Permission of instructor upon recommendation of advisor. COM 301 and COM 308 for internships in Public Relations & Advertising. COM 304 and COM 312 for internships in media production major. COM 302 and COM 303 and either COM 337 or COM 338 for internship in journalism major. Supervised field experiences in a professional setting for students who have completed extensive academic preparation in the discipline. Fifty hours of fieldwork per credit. Offered every semester.

COM 495 SPECIAL PROJECT

1-3, 3/0

Prerequisites: Permission of instructor. Offered occasionally.

COM 499 INDEPENDENT STUDY

3-12, 3/0

Prerequisites: Permission of instructor. Offered occasionally.

Speech Communication (SPC)

SPC 103 INTRODUCTION TO HUMAN COMMUNICATION

3, 3/0; HU23

Exploration of communication as the basis for personal and social interaction; focuses on roles of both consumers and producers of messages; investigation of various modes of communication. Offered Every Semester.

SPC 189 TOPIC COURSE

9, 0/0

Current topics in theoretical aspects of communication. Offered occasionally.

SPC 205 INTRODUCTION TO ORAL COMMUNICATION

3, 3/0

Basics of oral communication; examining the principles and contexts of communication; focus on the communication process, interviewing, public discussion, group problem solving, public speaking, and criticism of public messages. Offered Every Semester and Summer.

SPC 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

SPC 306 PUBLIC SPEAKING

3, 0/0

Prerequisite: SPC 205. Organization, delivery, and evaluation of public speech from a performance and analytical framework for professional, social, public, and small group situations. Offered fall only.

SPC 307 GROUP COMMUNICATION

3, 3/0

Prerequisite: SPC 205. Interdisciplinary approach to examination of the theoretical and practical dimensions of communication in small-group decision-making and problem-solving situations. Offered Every Semester.

SPC 309 PERSUASION AND PROPAGANDA

3, 3/0

Theory and practice of persuasion in various media contexts; analysis of social implications, ethical base, and impact of persuasive messages; analysis of contemporary propaganda in media contexts. Offered fall only.

SPC 311 INTERCULTURAL COMMUNICATION

3, 3/0; DI23

Prerequisite: CWP 102. Theory and practice of intercultural communication; ways to bridge differences based on culture, ethnicity, religion, gender, age, and other potential social barriers. Offered every semester.

SPC 315 MEDIA PERFORMANCE

3, 3/3

Prerequisite: SPC205. Principles and theories of voice performance for radio and other forms of media technology; techniques for marking and reading written scripts; focus on body language and vocal nuance; application to animation, storytelling, and commercial voiceovers. Offered Every Semester.

SPC 321 RHETORICAL CRITICISM

3, 3/0

Prerequisite: Upper-division status. Critical analysis of persuasive messages and strategies used by public persuaders; focus on social/political speeches, commercial advertising, music lyrics, and other forms of purposeful communication. Offered fall only.

SPC 326 FILM ANALYSIS AND EVALUATION

3, 2/1

Prerequisite: junior or senior standing. Aesthetic and philosophical analysis and evaluation of media; focus on ethical issues and themes found in films and media; considering film as an art form; reflection on values; morals; relationships relating to social questions. Offered occasionally.

SPC 333 RACE, CLASS AND GENDER IN THE MEDIA

3, 3/0; DI23

Prerequisite: Upper-division status. Critical analysis examining how American media shapes and represents issues relating to race, class and gender identities and relationships. Offered fall only.

Equivalent Course: COM 333

SPC 389 TOPIC COURSE

9, 0/0

Current advanced topics in theoretical aspects of communication. Offered occasionally.

SPC 407 ORGANIZATIONAL COMMUNICATION

3, 3/0

Prerequisite: Upper-division status. Theory and practice of communication within task-oriented organizations; focus on the interaction of structure, behavior, and message; role of communication in organizational change. Offered Every Semester.

SPC 422 MEDIA CRITICISM

3, 3/0

Prerequisite: Upper-division status. Critical analysis of mass media, including print, broadcast, and digital; application to news, documentaries, entertainment programming, and advertising; focus on social, cultural, and political impact of media messages from a rhetorical perspective. Offered occasionally.

SPC 424 SPECIAL TOPICS IN MEDIA CRITICISM

3, 3/0

Prerequisite: Upper-division status. Critical analysis of mass media, including print broadcast, and digital; focus on the role of media in a particular context (such as electoral politics or war). Offered fall only.

SPC 426 DOCUMENTARY FILM ANALYSIS

3, 2/1

Prerequisites: Junior/Senior Standing. Study of selected themes, ideas and movements of the documentary film through analysis of representative documentaries; includes major modes of documentary production and historical, social, ethical and artistic developments of the documentary. Students develop a significant research project focused on selected topic; course may be repeated if topic is different. Offered occasionally.

SPC 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Permission of instructor. Individual project in a theoretical aspect of communication not duplicated by an existing course.

SPC 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisite: Permission of instructor. Individual academic study in a theoretical area of communication not duplicated by an existing course.

Computer Information Systems (CIS)

CIS 101 COMPUTER FUNDAMENTALS

3, 3/0

Basic computer literacy. The computer and its components. Hands-on experience in creating business productivity products, such as word processing, spreadsheets, databases, and presentation documents. Relevant application software examined. The Internet, its impact on society, and use as a communication and research tool. Investigation of future trends and emerging technologies. Offered every semester.

CIS 105 INFORMATION TECHNOLOGY AND SOCIETY

3, 3/0

The impact of information technology (IT) on social, ethical, legal, economic, privacy, intellectual property, and personal issues. Contemporary issues and challenges as affected by historical IT developments (Internet, databases, networks, communications, etc.) Students use current technology to support investigations of related topics and to communicate findings. Offered every semester.

CIS 121 INTRODUCTION TO CODING

3, 3/0; MQ23

Introduction to various topics of computer science and to develop in students the computational thinking practices of problem solving and coding within the context of problems that are relevant to the lives of today's students. Students will be exposed to programming basics using block-based graphical environment, website design, and app programming for mobile devices. Offered every semester.

CIS 151 COMPUTER PROGRAMMING I

3, 3/0

Overview of computers and programming languages. Introduction to basic programming concepts, skills, tools, and principles of good practice. Design, develop, and execute programs using a modern programming language such as Python. Structured programming approach is utilized. Implementation of basic list and string data structures. Offered every semester.

CIS 189 TOPIC COURSE I

3, 0/0

Topics in Computer Information Systems.

CIS 190 TOPIC COURSE II

3, 3/0

CIS 251 COMPUTER PROGRAMMING II

3, 3/0

Prerequisite: CIS 151. Introduction of advanced programming concepts, methods, and tools, such as objects, list and string manipulation, exception handling, lambda expressions, file I/O, complex data structures. Both procedural and object-oriented programming approaches examined and utilized. Offered every semester.

CIS 315 COMPUTER ORGANIZATION

3, 3/0

Prerequisite: CIS 151. Introduce the organization and function of various components in a computer system. Covered topics including data representation, digital logic circuits, the CPU, memory, bus, instruction set architecture, machine and assembly languages, and parallel processing; discuss the interaction of system components; analyze computing performance issues. Offered every semester.

CIS 361 FUNDAMENTAL CONCEPTS IN OBJECT-ORIENTED PROGRAMMING

3, 3/0

Prerequisite: CIS 151. An introduction to object-oriented programming. Introduces transfer students who have had the equivalent programming experience in a procedural-oriented environment to the paradigms of the object-oriented environment. Required for CIS majors who have no previous experience with object-oriented programming. Offered fall only.

CIS 370 SYSTEMS ANALYSIS AND DESIGN

3, 3/0; IN23, RE23

Prerequisite: CIS 151. Introduction to information systems analysis and design, including concepts, approaches, methods, models, and tools and their application to various types of business and industry information system problems and challenges. Systems development life cycle is explored. Offered every semester.

CIS 375 WEB DESIGN AND PROGRAMMING I

3, 3/0

Prerequisite: CIS 251. Examine foundational web technologies, particularly HTML, CSS, and JavaScript. Create and implement structured web pages, style content, and interactive elements, preparing students for more advanced web development topics. Offered every semester.

CIS 380 DATABASE SYSTEMS I

3, 3/0

Prerequisite: CIS 151, CIS 370. An introduction to database systems, including spreadsheets, database uses and applications, data manipulation, sorting and indexing, functions of database systems, basic concepts of relational databases, and SQL programming. Offered every semester.

CIS 388 SERVICE LEARNING IN COMPUTING

3, 1/0

Prerequisites: CIS 151 or Instructor Permission. Students will participate in organized service-learning activities, offering coding/programming workshops for middle and high school students to address community needs. Students will enhance their academic knowledge and skills in a variety of areas of computer programming, develop technical communication skills, and foster their civic responsibility. Offered in fall and spring semesters.

CIS 389 TOPIC COURSE

3, 0/0

Topics in Computer Information Systems.

CIS 391 INFORMATION TECHNOLOGY PROJECT MANAGEMENT

3, 3/0

Prerequisite: CIS 370. Current practices in IT project management as applied to information systems projects. Hands-on experience with tools and techniques required in different phases of an information system project's life cycle, including project planning, staffing and organization, task scheduling, scope management, budgeting, and progress reporting. Considerations for agile/adaptive environments. Offered occasionally.

CIS 400 .NET APPLICATION DEVELOPMENT

3, 3/0

Prerequisite: CIS 251 or CIS 361. Introduction to the .NET integrated development environment (IDE). Application project development using graphics user interface forms, event driven programming, procedural and object-oriented paradigms, and fundamental data structures. Applications will access data from forms, files, and databases. Offered every semester.

CIS 410 COMPUTER OPERATING SYSTEMS

3, 3/0

Prerequisite: CIS 251 or CIS 361, CIS 315. A study of computer operating systems, their functions, components, scheduling and execution of jobs, task management, and interrupts. A comparison and exploration of contemporary operating systems is incorporated. Offered every semester.

CIS 411 DATABASE SYSTEMS II

3, 3/0; IN23

Prerequisite: CIS 370. Advanced concepts and uses of database management systems. Topics include data definition language (DDL), data query language (DQL), data manipulation language (DML), data normalization, and database management system principles. Components of relational database will be presented along with SQL programming. Offered every semester.

CIS 413 MULTIMEDIA WEB PROGRAMMING

3, 3/0

Prerequisites: CIS 251 or CIS 361, CIS 375. Integration of text, graphics, animation, and audio and video sources to create multimedia products deliverable via the World Wide Web. Programming with animation, data processing, dynamic content creation, and component manipulation. Emphasizes object-oriented capabilities of contemporary multimedia development tools, objects, methods, events, properties, and functions. Offered spring only.

CIS 414 MULTIMEDIA METHODS, TOOLS, PROGRAMMING, AND APPLICATIONS

3, 3/0

Prerequisite: CIS 151. Various media related to the needs of CIS professionals in business and industry are examined, including digital images, video, audio, animation, and multimedia. The course includes methods and tools in the design, development, and programming of a range of digital multimedia products for a variety of professional purposes. Offered in fall semester.

CIS 415 MULTIMEDIA AND USER INTERFACE DESIGN

3, 3/0

Prerequisite: CIS 151. Principles, processes, and tools for designing and developing digital multimedia for computer-based applications explored. User interface design principles (including visual, gestalt, and layout design principles) plus processes, features, and special considerations for a variety of digital products, applications, and platforms considered and applied. Offered occasionally.

CIS 420 DATABASE MANAGEMENT SYSTEMS

3, 3/0

Prerequisite: CIS 411. Advanced concepts of database management, including data modeling, features and uses of database management systems, data and database administration, and data dictionary. Offered spring only.

CIS 425 OBJECT-ORIENTED DEVELOPMENT

3, 3/0

Prerequisites: CIS 251. Object-oriented approach to programming and design, including its rationale. Topics include objects, encapsulation, information hiding, data and methods, access modifiers, exception handling, and inheritance. Students gain hands-on programming experience using an appropriate object-oriented language such as Java. Offered fall only.

CIS 427 E-COMMERCE SYSTEMS AND TECHNOLOGIES

3, 3/0

Prerequisites: CIS 370, CIS 375. Examines technological advancements along with business and organizational issues of electronic commerce. The technological context includes an understanding of tools and concepts such as Web servers, client/servers, communication networks, and e-commerce software. The business context includes components such as payment methods, fulfillment policies, privacy, security, and international issues. Offered spring only.

CIS 435 COMPUTER SEMINAR

3, 3/0

Prerequisite: Permission of instructor. Selected topics from subjects not covered in formal courses. Offered occasionally.

CIS 442 ADVANCED SYSTEMS APPLICATIONS

3, 3/0

Prerequisite: CIS 411. Information systems in complex organizations. Techniques of information systems analysis and design. Detailed study of a representative real-world information system. Case studies, group work, and oral presentations. Offered occasionally.

CIS 461 PROGRAMMING WITH PYTHON

3, 3/0

Prerequisite: CIS 251 or CIS 361. This course will introduce students to a general-purpose, high-level programming language called Python whose design philosophy emphasizes code-readability. This course will examine Python as multi-paradigm language which can be used to develop specific purpose software. Students will develop and present a research project using Python. Offered in fall semester.

CIS 470 DATA COMMUNICATIONS

3, 3/0

Prerequisites: CIS 315. Focuses on computer communication networks. Fundamental concepts in the design and implementation of networks, their protocols, and applications. Topics include: overview of network architectures, applications, network programming interfaces, transport, congestion, routing (topologies), data link protocols, and addressing. Offered occasionally.

CIS 471 NETWORKING LABORATORY I

3, 3/0

Prerequisites: CIS 410, CIS 470. Hands-on experience in installing, configuring, and administering a modern operating system in a networked environment. Fundamental building blocks of a computer network, including hardware, topologies, protocols, and the OSI model. Related concepts such as TCP/IP, Ethernet, network architecture, segmentation, virtual networks, performance optimization, and trouble shooting. Offered occasionally.

CIS 473 IT TECHNICAL SUPPORT

3, 3/0

Prerequisites: CIS 410. Various concepts, skills, and tools related to the needs of CIS professionals working in IT technical support, including computer components, assembly, and testing; motherboard components and functions; power supplies; data storage devices; expansion cards; network components, assembly, and testing; computer problems and troubleshooting; help desk skills and procedures. Offered occasionally.

CIS 475 WEB DESIGN AND PROGRAMMING II

3, 3/0

Prerequisites: CIS 375, CIS 411. Application of HTML5 and the latest technologies to create dynamic interactive web sites. Topics include creation of web pages using PHP to display dynamic content, file system I/O, creation of MySQL databases, populating the database using SQL statements via PHP, and displaying the database on a web page. Offered occasionally.

CIS 478 CYBERSECURITY

3, 3/0

Prerequisites: CIS 410, CIS 470. Apply relevant concepts and theories in the areas of computer/information security to the real world. Major topics include computer ethics, threat management, cybersecurity resources, endpoint security, cryptography, network security, and enterprise security. Offered occasionally.

CIS 480 INTRODUCTION TO ARTIFICIAL INTELLIGENCE

3, 3/0

Prerequisite: CIS 251. Provide a comprehensive understanding of fundamental concepts, techniques, algorithms, and applications of artificial intelligence. Serves as a gateway to the AI domain. Topics range from the theoretical foundations to practical implementations, including search, regression, classification, deep learning, natural language processing, computer vision, and robotics. Offered occasionally.

CIS 488 INTERNSHIP

3, 1/0

Prerequisites: CIS 251, CIS 370, Junior or Senior status, Instructor permission. Guided, supervised field experiences working as trainees, on special projects or studies, and/or in a relevant aspect of information systems in functioning organizations. Qualified, upper-level students should have at least a 2.5 GPA, a relevant background of courses, and approval from the CIS internship coordinator (or department chairperson). Offered every semester.

CIS 490 SENIOR SEMINAR

3, 3/0

Capstone Course.

CIS 494 UNDERGRADUATE RESEARCH IN COMPUTING

3, 3/0

Prerequisites: CIS Major or Minor, Upper Division status, Instructor Permission. Introduces students to various aspects of academic and applied research in the areas of Information Technologies, Computer Information Systems and related fields. Conduct in-depth research on topic of choice with instructor permission. Possible topics include, but are not limited to, programming methodology and applications, algorithms, advanced databases and distributed systems, networking, security, data analysis and related areas. Offered spring only.

CIS 495 SPECIAL PROJECT

1-3, 0/0

CIS 497 SPECIAL WORKSHOP

3, 0/0

Special workshop in Computer Information Systems.

CIS 499 INDEPENDENT STUDY

3-12, 0/0

Creativity and Change Leadership (CRS)

CRS 189 TOPIC COURSE

1-3, 0/0

Lower-level topics course in Creativity and Change Leadership Studies. Offered occasionally.

CRS 201 FOUNDATIONS OF LEADERSHIP

3, 3/0

History of leadership and leadership as an ongoing process of challenge, growth, and development. Students learn the foundational concepts of leadership, assess their own leadership styles, and discuss issues relevant to leadership. Provides opportunities for personal awareness and promotes effective leadership-skills development. Includes opportunities for the practice of leadership skills in campus and community organizations. Offer every semester.

Equivalent Courses: BUS 201, UNC 201

CRS 205 FOUNDATIONS IN CREATIVE THINKING

3, 3/0

Recognition and nurturing of creative potential. Focus on the creative person, the creative process, the creative product, and the creative environment. Further emphasis on the interactive nature of these elements and individual application in personal and professional settings. Offered every semester.

CRS 302 CREATIVE APPROACHES TO PROBLEM SOLVING

3, 3/0

Prerequisites: CRS 205 or CRS201, CWP 101, and CWP 101. Creative problem-solving methods and techniques. Emphasis on the application of creative problem solving to challenges, goals, and opportunities students face in their personal and professional lives. Offered fall only.

CRS 303 CREATIVE LEADERSHIP THROUGH EFFECTIVE FACILITATION

3, 3/0

Learn and practice creativity concepts as they relate to leadership; examination of individual leadership styles and specific methods and techniques to apply concepts and skills. Offered every semester.

CRS 304 DEVELOPING CREATIVE PROBLEM-SOLVING FACILITATION SKILLS

3, 3/0

Prerequisites: CRS 205 and CRS 302. Develop and apply facilitation and leadership skills in a variety of settings. Participate in supervised practice using creative problem-solving techniques with groups and individuals. Offered spring only.

CRS 320 APPLICATIONS OF CREATIVITY AND INNOVATION

3, 3/0

Prerequisite: CRS 205. Exploration of creative processes within a creative environment that produce novel and useful products. The nature of creative people; examination of personal experience in the application of creativity in the arts, science, education, and business. Personal creative ability developed through class activities, readings, and interaction. Offered spring only.

CRS 389 TOPICS IN CREATIVE STUDIES: APPLYING INTERDISCIPLINARY PRINCIPLES

3, 3/0

This interdisciplinary course examines major principles of creativity and their applications to everyday life-personal, social, professional, avocational. Explores the nature of creative persons and those factors that encourage or inhibit creative expression. Examines research for its various implications and applications. Guest speakers from a variety of disciplines examine creativity from their diverse viewpoints. Participation in the creative process in a variety of ways. Offered occasionally.

CRS 435 EXPERIENCES IN LEADERSHIP

3, 3/0

Prerequisites: CRS 201, CRS 302, CRS 303. Capstone experience to synthesize prior course work and transition into professional leadership opportunities. Development of leadership in applied contexts through interactions with successful leaders. Self-directed activities to hone leadership skills. Articulation of a vision as a future leader in respective profession and communities. Offered annually each spring semester.

CRS 495 SPECIAL PROJECT

1-3, 0/0

Special project in Creativity and Change Leadership.

CRS 499 INDEPENDENT STUDY

3-15, 0/0

Independent study in Creativity and Change Leadership.

Criminal Justice (CRJ)

CRJ 101 INTRODUCTION TO CRIMINAL JUSTICE

3, 3/0; SS23

An introductory analysis of the agencies and processes of the criminal justice system, including an examination of patterns of crime and victimization; underlying ideologies; procedures, functions and structure; fundamental legal concepts; interaction between various social groups and the criminal justice system; and organization, discretion and decision-making of police, criminal courts, and correctional services. Offered every semester.

CRJ 201 CRIMINAL LAW

3, 3/0

Prerequisite: CRJ 101. The study of substantive criminal law through the analysis of judicial opinions and textual material. In-depth coverage of the elements of crime, such as intent, actus reus, and concurrence, examined within the statutory definition of several different offenses and studied within the context of defenses such as justifications, among others. Offered every semester.

CRJ 202 THE POLICE PROCESS

3, 3/0

Comprehensive introduction to the basic elements of policing in the United States, designed to acquaint students with the most current knowledge about police organizations, police officers, police work, and police problems. Offered every semester.

CRJ 204 THE CORRECTIONAL PROCESS

3, 3/0

The correctional process from sentencing to parole. Examines legal and administrative processes used in establishing postconviction remedies, criminal sanctions, and social controls on adult offenders. Emphasis on understanding the structure and function of the American correctional system and the processes in establishing correctional custody and treatment. Offered every semester.

CRJ 250 INTRODUCTION TO INTELLIGENCE ANALYSIS

3, 3/0

Survey course that introduces students to the discipline of intelligence in the areas of national security, business, and law enforcement. Provides students with an understanding of how intelligence systems function, how they are used by policymakers, and how they are managed and controlled. Covers such intelligence topics as history, ethics, psychology, and analytical techniques. Offered every semester.

CRJ 301 POLICE ORGANIZATION AND MANAGEMENT

3, 3/0

Prerequisites: CRJ 101 or permission of instructor, upper-division status. Analysis of administrative theory and practice in police systems with emphasis on organization and function, and on issues unique to those systems. Offered every semester.

CRJ 302 CRIMINAL JUSTICE AND THE COMMUNITY

3, 3/0

Prerequisites: CRJ 101 and upper-division status or instructor permission. Patterns of crime in the community and the community's response. Differences between urban and suburban areas, as well as by age, gender, and race. Practices and effects of diversion, community-based corrections, victim-witness programs, crime watch, court watch, restitution, mediation, and dispute-resolution programs. Offered fall only.

CRJ 303 CRIMINAL JUSTICE THEORY AND IDEOLOGY

3, 3/0; RE23

Prerequisites: CRJ 101, CWP 102 and upper-division status or instructor permission. Examination of the social, political, cultural, and economic forces that shape the historical and contemporary theories and ideologies of crime and their interactive influences with criminal justice policies and practices. Offered every semester.

CRJ 305 THE JUVENILE JUSTICE SYSTEM

3, 3/0

Prerequisites: CRJ 101, and upper-division status. The structure and function of the juvenile justice system. Statutes and court decisions used to determine jurisdiction over youth. Critical decision-making stages of the juvenile court process. Review of the research concerning the relative effectiveness of treatment and social control programs for youth. Emphasis on the historical, cultural, social, and legal influences governing the processes, priorities, and practices of juvenile justice. Offered every semester.

CRJ 306 PROBATION, PAROLE, AND COMMUNITY CORRECTIONS

3, 3/0

Prerequisites: CRJ 101 and upper-division status. Review of probation, parole, and community corrections; their histories and organizational structures; the nature and effects of the process by which offenders are handled, as well as the dynamics and trends toward change in the field of probation, parole, and community-based corrections. Offered every semester.

CRJ 307 COMPARATIVE CRIMINAL JUSTICE SYSTEM

3, 3/0

Prerequisite: CRJ 101, CRJ 201, CRJ 202, CRJ 204, and Junior Status. Examination of major contemporary criminal justice systems and their operations under various cultural contexts. Efforts focused on the social, legal, political, and ideological forces which have shaped these various systems, as well as methodological issues of comparative research. Offered occasionally.

CRJ 308 CRIME PREVENTION

3, 3/0

Prerequisite: CRJ 101. The nature and effects of three levels of efforts at crime prevention: those administered by the formal justice system to prevent offenders from repeating offenses, those designed to deal with people identified as likely to commit crime, and those designed to modify the physical and social environments that foster crime. Offered occasionally.

CRJ 310 STATISTICS IN CRIMINAL JUSTICE

3, 3/0

Prerequisite: Majors Only, Completion of the IF or IF14 mathematics and quantitative reasoning requirement. An introductory overview of statistical principles and statistical techniques in criminal justice research. Introduction of data measurement, data distributions, probability and the normal curve, samples and populations, testing differences between means, analysis of variance, nonparametric tests of significance, correlation, and regression analysis. Includes "hands-on" experience using SPSS for data analysis and interpretation.

CRJ 315 RESEARCH METHODS IN CRIMINAL JUSTICE

3, 3/0; IN23

Prerequisites: CRJ 101 and upper-division status. Introduction to the research process as practiced in criminal justice addressing issues of ethics, research design, measurement, validity and reliability, and sampling. Explores various methods of data collection used in criminal justice research. Offered every semester.

CRJ 317 CONSTITUTIONAL ISSUES IN CRIMINAL JUSTICE

3, 3/0

Prerequisites: CRJ 101 and upper-division status. Constitutional issues in criminal justice through a review of United States Supreme Court decisions regarding law enforcement, prosecution, defense, judicial process, corrections, and community supervision; additional constitutional issues related to the administration of justice. Offered every semester.

CRJ 320 CRIMINAL COURTS

3, 3/0

Prerequisite: CRJ 101 and upper-division status or instructor permission. The trial criminal courts, with emphasis on courts for adult offenders. Legal, social, and political processes that affect the dynamics of the criminal trial process. Problems, possible reforms, and decision-making of the participants. Interrelationships that affect and influence court decisions and justice. Offered occasionally.

CRJ 355 CRIME ANALYSIS

3, 3/0

Prerequisite: Junior level status or instructor permission. Crime analysis terminology, techniques, and methodologies. The role and responsibilities of a crime analyst, including the need for analysts to utilize cross-jurisdictional data and provide objective results to policymakers and law enforcement decision-makers. Offered every semester.

CRJ 402 ADVANCED ADMINISTRATION IN CRIMINAL JUSTICE

3, 3/0

Prerequisites: CRJ 101 and upper-division status. Advanced course in management concepts and issues applicable to the administration of criminal justice agencies. Emphasis on a systems model of organizational analysis. External environment of crime control policy and its impact upon agency operations. Internal agency management. The responsibilities and functions of crime control agency managers. Offered spring only.

CRJ 404 WHITE-COLLAR AND CORPORATE CRIME

3, 3/0

Prerequisites: CRJ 101, CRJ 303, and upper-division status. Physical and financial harm caused by wayward corporations, corporate officials, employees, and other white-collar offenders. Emphasis on ethical and legal decision making and regulatory monitoring, and control of white-collar and corporate activity. Offered every spring.

CRJ 406 CORRECTIONAL INSTITUTIONS AND PROGRAMS

3, 3/0

Prerequisites: CRJ 101, CRJ 204, and upper-division status or permission of instructor. Comprehensive survey of adult institutional corrections systems, their programs and services, and the policies and procedures governing the operational, legal, and structural context of correctional environments. Emphasis on the research literature focused on the impacts and outcomes of various correctional intervention strategies. Offered occasionally.

CRJ 408 PROSEMINAR IN CRIMINAL JUSTICE

3, 3/0

Prerequisites: CRJ 101 and upper-division status or instructor permission. Investigation, examination, and discussion of topics of current interest in criminal justice. Techniques and analysis of criminal justice research. Offered occasionally.

CRJ 409 ADVANCED ISSUES IN LAW ENFORCEMENT

3, 3/0

Prerequisites: CRJ 101, CRJ 202, and upper-division status or permission of instructor. Advanced course on contemporary issues in law enforcement. Provides insight and depth into a broad range of topics and exposes students to experts and specialists from various relevant disciplines. Offered spring only.

CRJ 410 ORGANIZED CRIME

3, 3/0

Prerequisites: CRJ 101, CRJ 303, and upper-division status or instructor permission. Views on organized crime, the controversy surrounding the phenomenon, and efforts at control. Definition of organized crime, its developmental history, and models that define the structure of organized crime in the United States. Theories that explain the existence of organized crime, activities that constitute the "business" of organized crime, the relationship between organized crime and official corruption, techniques used to combat organized crime, and policy implications inherent in responses to organized crime. Offered fall only.

CRJ 420 ADVANCED ISSUES IN PUNISHMENT AND CORRECTIONS

3, 3/0

Prerequisites: CRJ 101, CRJ 204; upper-division status. Critical analysis of contemporary policies, practices, and issues arising from the control and punishment of criminal offenders. Emphasis on the complexity of recent issues, such as disparity in criminal sentencing, use of the death penalty, institutional overcrowding, treatment of institutionalized people, and community supervision of nonincarcerated offenders. Focus of analysis will vary with interests of faculty and students. Offered fall only.

CRJ 425 RACE, ETHNICITY, AND THE ADMINISTRATION OF JUSTICE

3, 3/0; DI23

Prerequisites: CRJ 101, CRJ 303 and senior level status or instructor permission. The current state of race relations in society and the criminal justice system; the historical experiences of different racial and ethnic groups in the United States and their relation to law and the criminal justice system as victims, offenders, and officials in criminal justice institutions. Offered every semester.

Equivalent Course: AAS 425

CRJ 430 GENDER AND THE ADMINISTRATION OF JUSTICE

3, 3/0; DI23

Prerequisites: CRJ 101, CRJ 303 and senior level status or instructor permission. The mutual effects between gender and aspects of criminal justice, including victimization, criminality, law, the criminal justice process, and the profession. Examination of perspectives on the historical subordination of women, and how law and the criminal justice system can be used to ameliorate that subordination. Offered every semester.

CRJ 440 DRUGS, CRIME, AND DRUG POLICY

3, 3/0

Prerequisites: CRJ 101, CWP 102 and upper-division status or instructor permission. The nature and impact of drug abuse in America and the relationship to criminal behavior. The historical and ideological foundations of national drug-control policy as well as contemporary control and intervention strategies. Offered occasionally.

CRJ 450 TERRORISM AND CRIMINAL JUSTICE

3, 3/0

Prerequisite: Upper-division status or instructor permission. The phenomenon of terrorism from a criminal justice perspective. The history of the phenomenon and contemporary terrorism in both its domestic and international manifestations; theories about terrorism; analytic methods for investigating and combating it, whether perpetrated by state or non-state actors. Offered every semester.

CRJ 455 ADVANCED INTELLIGENCE ANALYSIS

3, 3/0

Prerequisite: CRJ 250. Introduces a variety of analytical techniques; provides advanced knowledge, understanding, and application of these techniques; promotes critical thinking and report-writing skills. Offered every semester.

CRJ 470 ADVANCED SEMINAR IN CRIMINAL JUSTICE

3, 3/0

Prerequisites: CWP 102, CRJ 101, CRJ 303, CRJ 315, upper division status, and at least 24 credit hours of criminal justice coursework. Integration of knowledge acquired throughout the criminal justice curriculum into a holistic conception of criminal justice theory, practice, research, and planning. Emphasis on developing advanced scholarship, conceptualization, and critical thinking through writing within the discipline. Offered every semester.

CRJ 485 MOCK TRIAL

1-3, 1/0

Prerequisite: Upper-division status. Simulation of a trial court or appellate court proceeding involving teams of students acting as prosecutor/plaintiffs' attorneys, defense attorneys, and witnesses. Students develop case strategy, analyze evidence, integrate legal precedent, prepare a written brief, question witnesses, and present oral arguments to the court in opening and closing statements. Final project is a mock trial presentation held in a formal courtroom setting. Offered every semester.

Equivalent Courses: PSC 485, SOC 485

CRJ 488 INTERNSHIP IN CRIMINAL JUSTICE

3-15, 3/0

Prerequisites: Senior-level standing, 3.0 GPA, and permission of instructor. A comprehensive, supervised field experience in criminal justice and related social service agencies. Requires a minimum of 10 hours of work in the agency during a 14-week period (140 total hours) and a weekly academic seminar on campus. The purpose of the internship is to integrate knowledge learned in the academic environment with the experience of day-to-day work in a professional environment. Offered every semester.

CRJ 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

CRJ 497 WORKSHOP

3, 3/0

Special workshop in Criminal Justice.

CRJ 499 INDEPENDENT STUDY

3-15, 0/0

Dietetics (HEW, HPR, HTR, NFS)

Health and Wellness (HEW)

HEW 189 TOPICS COURSE

1-3, 1/0

Current topics in health and wellness. Offered occasionally.

HEW 200 FITNESS FOR LIVING

2, 2/0

Through a series of lecture/discussion sessions, laboratory experiences, and specific movement experiences the how, what, and why of physical activity and exercise are presented.

HEW 203 INTRODUCTION TO SPORTS ADMINISTRATION

3, 3/0

Overview of sports administration with concentration in collegiate athletics. Topics include marketing, promotions, budgeting, facilities, external relations (fundraising, development, corporate partnership), compliance, public relations. Offered every semester.

HEW 204 PERSONAL HEALTH

3, 3/0

Explores major health issues, behaviors, and social determinants of health. Emphasis is placed on individual and community responsibilities for both personal health and socioecological factors in promotion of health behaviors. Interrelated health dimensions include physical, emotional, spiritual, intellectual, social, environmental, occupational/financial, and community. Offered occasionally.

HEW 225 INTRODUCTORY EPIDEMIOLOGY

3, 3/0

Introduction to the general principles of disease. Etiology, signs, symptoms, treatment, and management of diseases that affect individual organs in the various body systems. Offered every semester, J Term and summer.

HEW 295 RESEARCH EXPERIENCE IN HEALTH AND WELLNESS

1-3, 0/0

Prerequisite: Instructor permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

HEW 301 KINESIOLOGY: APPLIED ANATOMY AND BIOMECHANICS

3, 3/0

Prerequisite: Sophomore status. Study of the skeletal, neural, and muscular systems and the biomechanical principles of human movement and their relationship to exercise, fitness, and athletic performance. Offered spring and summer.

Equivalent Course: HPR 301

HEW 303 LEGAL FOUNDATIONS OF SPORT ADMINISTRATION

3, 3/0

Overview of the basic vocabulary, legal concepts, liability issues, and legal concerns relevant to sport facilities management, operations, and marketing. Fundamentals of sports law as it pertains to sport management, marketing, facilities, resort venues, and tourism.

HEW 304 EXERCISE PHYSIOLOGY I

3, 3/0

Prerequisite: BIO 308. Introduction to concepts of human anatomy and physiology as related to exercise and human performance. Includes, but is not limited to, an introduction to the major systems of the body as they relate to exercise. Functions and purpose of the musculoskeletal system and cardiorespiratory system in healthy populations. Introduction to the roles of energy systems during physical activity and exercise. Offered every semester.

HEW 305 COMMUNITY HEALTH/WELLNESS

3, 3/0

Prerequisite: HEW 204 or HEW 225. Community health as it relates to world concerns, U.S. interests, and local community concerns. The interrelatedness of health care to various societal issues. Offered every semester.

HEW 306 EXERCISE PHYSIOLOGY II

3, 3/0

Prerequisites: HEW 304 and BIO 308. Exercise and its effects on the human body. Practical knowledge of the principles of fitness testing and exercise prescription and application of knowledge to improve fitness and athletic performance in healthy and diseased human populations. Offered fall and spring semesters.

HEW 308 WOMEN'S HEALTH ISSUES

3, 3/0

Prerequisite: Junior or Senior Status. Gender differences in health outcomes, health-care practices, and health behavior, with primary emphasis on women. Historical and current perspectives on women's health issues. Part of Women and Gender studies minor. Offered fall, J Term and summer.

HEW 310 HEALTH STANDARDS AND EMERGENCY CARE

3, 3/0

Prerequisite: BIO 100 or BIO 111. Promotes health and safety standards and provides skills in advanced emergency care. Competencies in various areas of emergency medicine include bandaging, splinting, victim examination, bleeding/shock emergencies, and emergency childbirth. Includes competencies and proficiency in teaching OSHA safety standards for infectious agents. Offered every semester.

HEW 312 METHODS AND MATERIALS IN HEALTH AND WELLNESS

3, 3/0

Prerequisites: CWP 102 and HEW 305 or HEW 322. Oral and written communication skills appropriately delivered via instructional methodologies and materials necessary to create, select, and deliver health and wellness programs; constructed for health education/promotion and wellness audiences.

HEW 320 PSYCHOACTIVE DRUGS AND HEALTH

3, 3/0

Prerequisite: Sophomore, junior, or senior status. Widespread effects of drug abuse, its relationship to health and disease, and the implication and application for education and theory. Offered fall only.

HEW 322 PRINCIPLES OF HEALTH PROMOTION SCIENCES

3, 3/0

Prerequisites: HEW 204 or HEW 225. Explore principles of social-ecological change that promote better health at the population level. Identify environmental and social conditions that affect health and select intervention strategies that change those systems and conditions in communities.

HEW 326 INTRODUCTION TO HEALTH DATA VISUALIZATION AND ANALYTICS

3, 3/0

Prerequisite: Satisfaction of Intellectual Foundations Mathematics and Quantitative Reasoning requirement. Introduction to core concepts for understanding and using data in fields of health. Topics fundamental to understanding how to analyze data. Analytic methods for expressing data and information in ways to enhance the development, implementation, and evaluation of health promotion programs. Develop a research project using health data.

HEW 327 INTRODUCTION TO MEDICAL ANTHROPOLOGY

3, 3/0

Prerequisite: ANT 100 or ANT 101 or permission of instructor. An overview of the history and development of concepts and practices of medicine worldwide. Theories and procedures in illness, sickness, health and well-being in and from a variety of cultural perspectives, historical and contemporary, East and West, Stone Age, folk, shaman, traditional Western and herbal medicine, including healing and religion, homeopathy, and anthropological study of health-care institutions. Offered occasionally.

Equivalent Course: ANT 327

HEW 330 PRINCIPLES OF PERSONAL TRAINING

3, 3/0

Prerequisite: BIO 308. Fitness assessment techniques, program design and implementation for a variety of populations, and motivational techniques. Prepares students for employment within the personal training and fitness industry, and for the national certifications offered by the National Strength and Conditioning Association and the American College of Sports Medicine.

HEW 331 PRINCIPLES OF STRENGTH AND CONDITIONING

3, 3/0

Prerequisites: HEW 306 and NFS 102. Program design, motivational techniques, and implementation of strength and conditioning techniques for a variety of populations. Prepares students with the knowledge and skills to work in the physical fitness and sports performance industries. Prepares students for the national certifications offered by the NSCA, ACE, and NASM. Offered occasionally.

HEW 335 PREVENTION AND CARE OF ATHLETIC INJURIES

3, 3/0

The relationships among conditioning, performance, and injury prevention. Includes techniques and programs of body conditioning for specific sports, and the possible treatment of athletic injuries. A required course for students choosing either to meet minimal standards for coaching certification or to meet the requirements of the coaching minor. Offered fall only.

Equivalent Course: HPR 335

HEW 340 DIMENSIONS OF HUMAN SEXUALITY

3, 3/0

Prerequisite: Sophomore, Junior or senior status. Principles of public health applied to understand sexual health issues. Health-based approach to understand factors that influence human sexual behavior. Physical, emotional, mental, and social well-being in relation to sexuality. Prevention and wellness approaches in promoting sexual health when considering culture, religion, age, gender, race, ethnicity, and sexual orientation. Offered annually.

HEW 345 WELLNESS, FITNESS, AND AGING

3, 3/0

Prerequisite: Sophomore, Junior or Senior status. Acquaints students of gerontology with the implications of exercise and physical fitness for the quality of life of older citizens. Covers the aging process and its relationship to physiological factors associated with exercise and fitness. Differences in capacities for exercise. Principles for guiding the selection, programming, and supervision of activities. Part of Gerontology minor. Offered spring and summer.

HEW 350 EPIDEMIOLOGY

3, 3/0

Prerequisites: Satisfaction of Intellectual Foundations Mathematics and Quantitative Reasoning requirement. Introduction to epidemiology and epidemiological research for incidence, distribution, and control of diseases and health-related factors. Conceptual and practical issues encountered in design, conduct, and analysis of descriptive, experimental, and clinical epidemiologic studies. Includes basic research designs, estimating outcome measures, establishing cause and effect, and effectiveness of interventions to prevent and cure disease. Offered occasionally.

HEW 380 ETHICAL CONSIDERATIONS IN SPORT ADMINISTRATION

3, 3/0

Prerequisite: PHI 102. Situations that require the sport facilities manager to examine how legal and ethical principles influence decisions. Selected ethical concepts and an examination of ethical diversity in management at resort and tourist locales. Specific legal topics, related ethical considerations, and critical analysis.

HEW 389 TOPICS COURSE

1-3, 1/0

Current advanced topics in health and wellness. Offered occasionally.

Equivalent Course: HPR 389

HEW 401 ASSESSMENT AND EVALUATION IN HEALTH WELLNESS

3, 3/0; IN23

Prerequisites: HEW 305 or 322. Concepts surrounding assessment and evaluation of health promotion programs; health promotion process and planning including needs assessment, evaluation measures, research design, and measurement evaluation.

HEW 411 CRITICAL ISSUES IN HEALTH AND WELLNESS

3, 3/0; RE23

Prerequisites: HEW 312 and CWP 102. One's interaction with his/her many environments and the implications this has on various health behaviors. Facts, attitudes, and behaviors important in confronting critical and current health issues.

HEW 412 COMMUNITY HEALTH PROMOTION PROGRAMS

3, 3/0

Prerequisites: HEW 312. Provides an opportunity to use community health promotion concepts. Explores the major components of planning and implementing community health promotion programs. Current behavioral and cognitive theories and models of health promotion programs will be examined. Principles presented in class during exams and health promotion-planning experiences. Offered every semester.

HEW 425 ALCOHOL PROBLEMS

3, 3/0

Prerequisite: Junior or Senior Status. Examines the etiology of alcohol use and the public health significance of alcohol-related problems. Uses theoretical frameworks to understand how social, cultural, and environmental factors influence alcohol use, misuse, and abuse, including gender, race, and ethnicity. Explores research-based prevention strategies to reduce alcohol consumption and achieve population-level health and social impact. Offered every spring.

HEW 426 APPLIED DATA ANALYSIS FOR HEALTH PROMOTION SCIENCES

3, 3/0

Prerequisites: HEW 326 (minimum grade of C) or MAT 311 (minimum grade of C). Expansion of core concepts introduced in prerequisite courses. Focus on developing competencies in applied methods for analyzing and visualizing health-related data. Complete multiple labs and research projects using health data to enhance the development, implementation, and evaluation of health promotion programs.

HEW 488 INTERNSHIP

3-12, 0/0

Prerequisites: HEW 412 or HEW 411 as prerequisite or co-requisite, permission of instructor. Through mentored field experience, practice in the professional skills of an entry-level community health education and promotion specialist. Offered every spring.

HEW 495 SPECIAL PROJECT

1-3, 0/0

Offered summers only.

Equivalent Course: HPR 495

HEW 497 WORKSHOP

1-3, 0/0

Offered occasionally.

HEW 499 INDEPENDENT STUDY

3-12, 0/0

Offered occasionally.

Equivalent Course: HPR 499

Coaching and Physical Education (HPR)

HPR 100 SPECIAL PROJECT

1, 0/0

Limited for certain movement, exercise, and sport experiences. Completion of form and approval of program coordinator required. Forms available in the Coaching and Physical Education Office. Offered every semester.

HPR 114 JOGGING FOR PHYSICAL FITNESS

1, 0/2

Offered occasionally.

HPR 126 PRINCIPLES, PHILOSOPHY AND ORGANIZATION OF ATHLETICS IN EDUCATION

3, 3/0

A study of the philosophy and principles of athletics in education. Students will learn rules, regulations, risk management, personal standards and values, coaching concerns to include special populations. Designed as a required course for students choosing to meet minimal New York State standards for coaching certification. Meets part of the state-mandated requirements for interscholastic coaches. Offered every Fall and Spring

HPR 154 FITNESS THROUGH SWIMMING

1, 0/2

Prerequisite: Completion of HPR 153 or demonstration to the instructor of equivalent aquatic ability. Activity aquatic class to increase student's cardio-respiratory fitness level. Swimming skills, workout planning and participation. Offered occasionally.

HPR 180 PHYSICAL FITNESS FOR WOMEN

1, 0/2

Offered occasionally.

HPR 189 TOPICS COURSE

1-3, 1/0

Current topics in coaching. Offered occasionally.

HPR 198 STRENGTH FITNESS

1, 0/2

Offered occasionally.

HPR 201 TECHNIQUES AND THEORIES OF COACHING SPECIALTY SPORT

2, 2/0

Prerequisite: HPR 126 or Instructor Permission. Basic underlying philosophies, techniques and theories for planning, organizing and managing specialty sport, e.g. – hockey, lacrosse, volleyball, etc. - programs in educational settings. Intended for prospective coaches. Application of the principles and practices of coaching a specialty sport team. Active participation in practical coaching scenarios. Offered occasionally.

HPR 202 TECHNIQUES AND THEORIES OF SOCCER

2, 2/0

Prerequisites: HPR 126. Basic underlying philosophies, techniques and theories for planning, organizing and managing soccer programs in educational settings, ie – high school. Intended for prospective soccer coaches. Applying the principles and practices of coaching a soccer team. Active participation in practical coaching scenarios under the guidance and supervision of a New York State certified coach. Offered Fall semester

HPR 203 THEORIES AND TECHNIQUES OF FOOTBALL

2, 2/0

Prerequisites: HPR 126 or HPR 300. Underlying philosophies, theories and techniques for planning, organizing and managing football programs. Intended for prospective football coaches. Applying the principles and practices of coaching a football team. Active participation in practical coaching scenarios under the guidance and supervision of a New York State certified coach. Offered occasionally

HPR 205 THEORIES AND TECHNIQUES OF TRACK AND FIELD

2, 2/0

Prerequisites: HPR 126 or HPR 300. Basic underlying philosophies, theories and techniques for planning, organizing and managing track and field programs. Intended for prospective track and field coaches. Applying the principles and practices of coaching a track and field team. Active participation in practical coaching scenarios under the guidance and supervision of a qualified coach. Offered spring semester.

HPR 207 TECHNIQUES AND THEORIES OF BASEBALL/SOFTBALL

2, 2/0

Prerequisites: HPR 126 or HPR 300. Basic underlying philosophies, techniques and theories for planning, organizing and managing baseball/softball programs in educational settings, ie – high school. Intended for prospective baseball/softball coaches. Applying the principles and practices of coaching a baseball team/softball. Active participation in practical coaching scenarios under the guidance and supervision of a New York State certified coach. Offered Fall and Spring semester

HPR 208 TECHNIQUES AND THEORIES OF SWIMMING

2, 2/0

Prerequisites: HPR 126 or HPR 300. Basic underlying philosophies, theories and techniques for planning, organizing and managing swimming programs. Intended for prospective swimming coaches. Applying the principles and practices of coaching a swim team. Active participation in practical coaching scenarios under the guidance and supervision of a New York State certified coach. Offered occasionally

HPR 209 TECHNIQUES AND THEORIES OF BASKETBALL

2, 2/0

Prerequisites: HPR 126 or HPR 300. Basic underlying philosophies, techniques and theories for planning, organizing and managing basketball programs in educational settings, ie – high school. Intended for prospective basketball coaches. Applying the principles and practices of coaching a basketball team. Active participation in practical coaching scenarios under the guidance and supervision of a New York State certified coach. Offered Fall semester

HPR 301 KINESIOLOGY: APPLIED ANATOMY AND BIOMECHANICS

3, 3/0

Prerequisite: Sophomore status. Study of selected anatomical, physiological, and mechanical principles of movement and their application to human motion. Offered fall only.

Equivalent Course: HEW 301

HPR 306 ORGANIZATION AND ADMINISTRATION OF INTRAMURAL SPORTS

3, 3/0

Prerequisite: Sophomore status. Critical analysis of the organization and administration of intramural and recreational sports programs. Offered occasionally.

HPR 309 HEALTH SCIENCES FOR COACHING

3, 3/0

Interdisciplinary study of the health sciences as they apply to coaching interscholastic sports. Selected principles of anatomy, kinesiology, and physiology related to coaching; risk minimization; mixed competition; New York State Department of Education

selection and classification of athletes; definition of age and maturity of athletes. Partially fulfills New York State requirements for interscholastic coaching certification. Offered spring and summer only.

HPR 319 SOCIOLOGY OF SPORT

3, 3/0

Sport and related social phenomena of social status, norms, goals, values, and organizational network. Offered spring only.

Equivalent Course: SOC 324

HPR 335 PREVENTION AND CARE OF ATHLETIC INJURIES

3, 3/0

The relationships among conditioning, performance, and injury prevention. Includes techniques and programs of body conditioning for specific sports, and the possible treatment of athletic injuries. A required course for students choosing either to meet minimal standards for coaching certification or to meet the requirements of the coaching minor. Offered fall only.

Equivalent Course: HEW 335

HPR 389 TOPICS COURSE

1-3, 1/0

Current advanced topics in coaching. Offered occasionally.

Equivalent Course: HEW 389

HPR 488 INTERNSHIP

1-15, 0/0

Prerequisites: Upper-division status and instructor permission. The integration of theoretical knowledge with practical field experience in coaching interscholastic sports. Offered fall only.

HPR 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

Equivalent Course: HEW 495

HPR 499 INDEPENDENT STUDY

3-9, 0/0

Offered occasionally.

Hospitality and Tourism (HTR)

HTR 100 MULTICULTURAL FOODS

3, 1/2

Cultural overview of the foods and food habits of selected groups. Common foods, meal patterns, special-occasion foods, and the role of food in society. The impact of the groups on the American lifestyle. Offered fall, spring and summer only.

HTR 110 INTRODUCTION TO HOSPITALITY AND TOURISM

3, 3/0

Overview of the hospitality-tourism industry: hotels, resorts, tourism and travel, convention management, casinos and gaming, food service (commercial and noncommercial), and culinary arts. Emerging trends in the industry and available career opportunities.

Offered fall, spring and summer only.

HTR 200 SANITATION AND SAFETY IN FOOD SERVICE

3, 3/0

Causes of and conditions leading to food-borne illnesses. Evaluation of potential hazards of food service operations and measures to control them. Students take the SERVSAFE sanitation certificate examination, offered by the National Restaurant Association's Educational Foundation, at the end of the course. Offered fall and J Term only.

HTR 300 FOOD AND BEVERAGE MANAGEMENT

4, 1/6

Prerequisite: HTR 110. Students work at Campus House, the hospitality training facility. Students are required to apply various food production, purchasing, and sanitation principles while participating in labs. Emphasis on preparing high-quality products and providing high-quality service. Offered fall, spring and summer only.

Equivalent Course: NFS 300

HTR 305 APPLIED CULINARY ARTS

3, 2/2

Prerequisite: HTR 110. This course is designed to provide students with the progressive skills and knowledge needed to build on their existing culinary abilities in order to create advanced levels of Haute cuisine. Offered spring only.

HTR 318 CULTURAL TOURISM

3, 3/0

Prerequisite: HTR 110. A practical approach to understanding regional cultural attractions and the economic impact they have on the community. The course examines the historical context of cultural tourism and the structure of local cultural attractions through guided tours, guest presentations, and participation in the regional cultural tourism efforts. Offered spring only.

HTR 330 FUNDAMENTALS OF BAKESHOP PRODUCTION

3, 1/4

Prerequisite: HTR 110. Designed to provide students with an overview of bakeshop concepts, which include knowledge base and production skills necessary to create fundamental bakery products. Offered spring and summer only.

HTR 335 WINE ESSENTIALS

3, 3/0

Prerequisite: HTR 110. A presentation of the origins and history of wines. At the completion of the course, students will have had exposure to winemaking, wine service, and wine tasting. Students will learn to evaluate variations and quality of wines. Offered fall and spring only.

HTR 340 INDUSTRY EXPERIENCE

3, 1/9

Prerequisites: Completion of CWP 101, CWP 102 and HTR 110; major GPA of at least 2.0. Opportunity to integrate technical knowledge with industry experience in hospitality and tourism enterprises. Supervised field experience, meeting with instructor, and structured written assignments. May be taken for a maximum of six credits. Offered fall, spring and summer only.

HTR 348 TOURISM AND WORLD TRAVEL

3, 3/0

Prerequisite: HTR 110. Overview of world tourism and travel and the impact of tourism on world trade, geopolitical understandings, and cultural exchange. Introduction to career opportunities in the industry. Offered occasionally.

HTR 350 COMPUTER APPLICATIONS FOR HOSPITALITY

3, 3/0

Prerequisites: HTR 110. Focuses on computer technology and application in the hospitality industry. Emphasis on computer hardware, available software, and the impact technology has played in the industry. A thorough exploration of Web-based information will enhance real-world applications. Offered fall and spring only.

HTR 361 PRINCIPLES OF MANAGEMENT IN FOOD SERVICE

3, 3/0

Prerequisite: HTR 110. Application of management principles in food service systems. Offered fall only.

HTR 365 MENU DESIGN AND DEVELOPMENT

3, 3/0

Prerequisites: HTR 110. A complete study of restaurant menus including historic perspective, the current state of the food service industry, detailed menu analysis, pricing, mechanics, menu production and service. Financial planning and ethical management will also be covered. Offered fall only.

HTR 368 HOTEL OPERATIONS

3, 3/0

Prerequisite: HTR 110. Organization, function, and management of the rooms and divisions of hotels, resorts, and other lodging facilities; security; facilities management; front-office management. Offered fall and spring only.

HTR 370 COST CONTROLS IN HOSPITALITY

3, 3/0

Prerequisite: HTR 110 and successful completion of Mathematic and Quantitative Reasoning requirement. Relevant accounting and financial concepts and procedures. Interrelationships between costs and their impact on gross margins and net incomes. Strategies to control fixed and variable costs. Offered fall, spring and summer only. Offered fall and spring only.

HTR 375 EVENTS MANAGEMENT

3, 2/0

Prerequisite: HTR 110. The best practices in modern event management and the three dimensions of event leadership: event administration, an insider's vocabulary, and industry certification standards. An overview of event projects, new product developments, business meetings, seminars and conferences and exhibitions. Fieldwork opportunities, in special events on campus and off campus. Offered spring and summer only.

HTR 380 ADVANCED TRAINING IN HOSPITALITY

3, 3/0

Prerequisite: HTR 110. Review of training principles used to design, implement, and evaluate administrative programs for the hospitality industry. Application of theoretical concepts to hospitality-tourism related situations. Offered fall and spring only.

HTR 385 PRIVATE CLUB MANAGEMENT

3, 3/0

Prerequisite: HTR 110. This course is an in depth study of the private club industry. Emphasis is on club needs assessment, development of programs for members and other audiences, overcoming challenges that external and government agencies pose for managers, golf course maintenance, and capital improvement projects for club and resort facilities. Issues relative to finance and board governance and structure will also be analyzed. Offered fall only.

HTR 389 TOPICS COURSE

3, 0/0

Offered Occasionally.

HTR 390 STRATEGIC MARKETING IN HOSPITALITY

3, 3/0

Prerequisite: HTR 110. Relevant principles and concepts of marketing; theories of market segmentation and positions; various theories will be discussed using the analysis approach. Students will be required to develop a marketing plan and analyze hospitality case studies. Price, promotion, and consumer behavior are discussed in detail. Offered fall, spring and summer only.

HTR 400 CATERING MANAGEMENT

3, 1/4

Prerequisite: HTR 110. Provides students with an understanding of catering principles as well as management experiences through the execution of specially booked functions; opportunities to apprentice in planning, organizing, supervising, preparing, and serving food and beverage for planned catered events. Offered fall and spring only.

HTR 408 CONVENTIONS, MEETINGS, AND EXPOSITIONS

3, 3/0

Prerequisite: HTR 110. Introduction to the meeting, convention, and exposition industry. The basic framework for planning a meeting, convention, or exposition. Offered fall and spring only.

HTR 418 TOURISM MANAGEMENT

3, 3/0

Prerequisite: 110. Tourism as a world export industry and its importance to the economy; tourist behavior, motivation, and decision making; the interrelationship of recreation and tourism; the system used to deliver tourism services; and the products and services of the tourism industry. Offered fall, spring and summer only.

HTR 455 ADVANCED HUMAN RESOURCE MANAGEMENT IN HOSPITALITY

3, 3/0; RE23

Prerequisite: HTR 110. Strategies used by the hospitality manager to create a more effective work environment; application of advanced human resource concepts useful in problem solving and decision making in the diverse and competitive hospitality-tourism industry. Offered fall, spring and summer only.

HTR 468 HOTEL MANAGEMENT

3, 3/0

Prerequisites: HTR 110 and HTR 368. An in-depth look at duties, responsibilities, problems, and opportunities encountered by top management in the lodging industry. This course emphasizes current global issues facing hotel management today, linking advanced theory with real-world problems and solutions. Explores the diversity in management through cultural differences and leadership styles. Offered fall and spring only.

HTR 470 LEGAL ISSUES IN HOSPITALITY

3, 3/0

Prerequisite HTR 110. Overview of local, state, and federal laws and regulations that promote policies for effective hospitality organizations. Case-study analysis. Offered spring and summer only.

HTR 480 PRACTICUM IN HOSPITALITY OPERATIONS

4, 1/6; IN23

Prerequisites: HTR 300 and senior status. Culminating experience in hospitality administration at Campus House requiring students to apply various theories and concepts learned in previous courses. Students develop marketing, strategic, and financial plans. Offered fall, spring and summer only.

HTR 483 BSC LED STUDY AWAY PROGRAM

1-15, 0/0

Acceptance into the program required.

HTR 485 SEMINAR IN HOSPITALITY

1, 1/0

Prerequisite: Senior status. Investigation of contemporary issues relevant to the hospitality industry. Students research and present topics of their choice and participate in career-related activities. Offered fall and spring only.

HTR 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor and department chair permission, using department forms available in Caudell Hall 207. Offered occasionally.

HTR 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisite: Instructor and department chair permission, using forms available in the department office. Offered occasionally.

Dietetics and Nutrition (NFS)

NFS 100 INTRODUCTION TO FOOD PREPARATION

3, 2/2

A study of the composition of food and scientific principles of food preparation and cookery. Students learn food selection, storage, and preparation skills. Lab included. Offered spring only.

NFS 102 INTRODUCTORY NUTRITION

3, 3/3; NS23

A basic science in human nutrition focuses on knowledge of chemical structure, dietary sources, requirements, functions, digestion, absorption, transportation, utilization, and excretion of essential nutrients and other substances. Offered every semester.

NFS 105 FOOD AND PEOPLE

3, 3/0

The use of technology and science for food production, preservation, processing, and safety profoundly influences nutritional, economic, social, ethical, legal, and personal issues. Concerns about the impact of technology on environment, health, culture, and hunger/malnutrition are addressed. Course prepares students to understand the concepts of food, nutrition, food culture, and food safety for optimal health. Offered every semester.

NFS 108 FOOD CULTURE AND CIVILIZATION IN THE FAR EAST

3, 3/0; GA23

A study of food culture in context with civilizations of the Far East. Focuses on the relationship between the development of food habits/culture and civilization as influenced by political, socioeconomic and cultural factors, and international relations. Offered every semester.

NFS 110 APPLIED PRINCIPLES OF MANAGEMENT IN DIETETICS/FOOD SERVICES

3, 3/0

Management principles and concepts explored through class assignments that simulate real-world situations and prepare students for advanced study and application in management. Offered every semester.

NFS 189 TOPICS COURSE

1-3, 1/0

Current topics in dietetics and nutrition. Offered occasionally.

NFS 200 APPLIED FOOD CHEMISTRY

1, 0/2

Prerequisites: NFS 100, NFS 102, CHE 112. This course will examine food and the ways it is modified based on food trends. Types of evaluation techniques such as recipe analysis, recipe adaptation and market surveys will be examined. Labwork will explore the application of sensory evaluations and chemical analyses to recipes. Offered spring only.

NFS 210 FOOD SERVICE SYSTEMS MANAGEMENT IN HEALTH CARE

3, 3/0

Prerequisite: NFS 110. In-depth analysis of the procurement process, menu development, food production and delivery, quality standards, and financial management of food service systems and related subsystems. Offered fall only

NFS 211 APPLIED MANAGEMENT IN DIETETICS I

3, 3/0

Prerequisites: Majors only. Second of a three course sequence. Focuses on concepts and practices consistent with the practice of human resource management, financial management, safety, and infection control as they apply to health care food service management. Assignments prepare students to become skilled in specific areas of dietetics practice and food service management. Offered spring only.

NFS 230 INTRODUCTION TO DIETETICS

2, 0/0

Overview of the dietetics profession: career options, professional development, career portfolio development, professional organization, code of ethics, standards of practice, professional values, creativity, Academy of Nutrition and Dietetics position papers, introduction to legislative process, professional issues and trends, and professional references and resources. Offered fall only.

NFS 280 INTRODUCTION TO COMPLEMENTARY AND ALTERNATIVE MEDICINE

3, 3/0

Prerequisite: NFS 102. Introduction to complementary and alternative medicine (CAM), integrative and functional medicine, CAM modalities that include mind-body medicine, naturopathy of herbs and dietary supplements, and physical medicine for prevention of chronic diseases. Review on the regulatory and legal policies on the use of CAM therapies and products. Offered occasionally.

NFS 300 FOOD PROCESSING I

2, 2/0

Prerequisite: NFS 200. A study of the commercial food preservation and packing techniques, storage, food safety and food laws, and genetic engineering. Offered fall only.

NFS 302 ADVANCED NUTRITION

3, 3/0

Prerequisites: NFS 102, CHE 112, CHE 201 CHE 203, BIO 308. Recommended co-requisite: CHE 322. Integrates the sciences of inorganic chemistry, organic chemistry, anatomy, physiology, genetics and human nutrition. Preparatory course for Medical Nutrition Therapy including the study of macronutrient and micronutrient metabolism, nutrient control of gene expression, energy metabolism and physiologic role of fiber. Offered spring semester only.

NFS 310 PERSONNEL MANAGEMENT IN DIETETICS/FOOD SERVICES

3, 3/0

Prerequisite: NFS 210. Management concepts and practices consistent with the management of human resources in a health care organizational setting. The application of operational strategy in terms of fulfilling the mission of an organization competing in today's market. Offered spring only.

NFS 311 APPLIED MANAGEMENT IN DIETETICS II

3, 3/0

Prerequisites: NFS 211. Majors only. Third of a three course sequence. Focuses on food service systems and related subsystems involving an in-depth analysis of menu development and modification for disease states. Procurement, food production, distribution and service, food safety, and facility design.

NFS 315 LIFE CYCLE AND COMMUNITY NUTRITION I

3, 3/0

Prerequisites: NFS 102. A study of the physiological changes during pregnancy, lactation, and older adult aging; growth and development during infancy, preschool, school age and adolescence; the food and nutrition needs, specific nutritional concerns and nutritional services and nutritional programs available. Offered spring only.

NFS 316 LIFE CYCLE AND COMMUNITY NUTRITION II

3, 3/0

Prerequisites: NFS 315. A study of the nutritional issues and chronic disease prevention in adult life; community nutrition services available to adults and identifying and developing community nutrition programs. Offered fall only.

NFS 330 INTEGRATIVE AND FUNCTIONAL NUTRITION

1, 1/0

Prerequisites: NFS 102 or equivalent and NFS 401 or permission of instructor. A one-credit course provides an introduction to integrative and functional nutrition (IFN) and complementary and alternative medicine (CAM). The course focuses on dietary supplements that include vitamins, minerals, functional foods, phytochemicals, nutraceuticals for disease prevention and treatment. An emphasis will be given to the regulatory (legal, ethical and moral) issues of dietary supplements. The goal of the course is to prepare students to have competency in IFN as a part of medical nutrition therapy. Offered spring only.

NFS 334 CONTEMPORARY NUTRITION

3, 3/0

Explanation of nutrition. The functions, requirements, food sources, and results of deficiency and excess for each nutrient. Topics of current interest, such as weight control. Food fads and government nutrition policies. Not open to dietetics majors.

NFS 389 TOPICS COURSE

1-3, 1/0

Current advanced topics in nutrition and dietetics. Offered occasionally.

NFS 401 MEDICAL NUTRITIONAL THERAPY I

4, 4/0

Prerequisites: NFS 302, CHE 322, BIO 308, BIO 309. First of four course sequence examining interrelationships of pathophysiology, biochemistry, genetics and nutrition as related to medical nutritional therapy. Emphasis will be given to the nutrition care process, nutritional assessment and role of nutrition in preventing and treating diseases/disorders: obesity/weight management, cardiovascular disease, drug-nutrient interactions, and disordered eating. Offered fall only.

NFS 402 MEDICAL NUTRITIONAL THERAPY II

3, 2/2

Prerequisites: NFS 401 and for DEP co-requisite NFS 446. Second of a three course sequence examining the interrelationships of pathophysiology, biochemistry, genetics and nutrition as related to medical nutritional therapy. Emphasis on role of nutrition in preventing and treating disease/disorders: diabetes mellitus, hypoglycemia, renal, dysphagia, chronic obstructive pulmonary disease, and cystic fibrosis. Offered spring only.

NFS 403 MEDICAL NUTRITIONAL THERAPY III

3, 2/2

Prerequisites: NFS402 and for DEP co-requisite NFS 447. Third of a three-course sequence examining the interrelationships of pathophysiology, biochemistry, genetics, and nutrition as related to medical nutritional therapy (MNT). Addresses MNT for cancer, upper and lower gastrointestinal (GI) disorders, exocrine pancreas, hepatobiliary, and pulmonary disease, metabolic stress (including sepsis, SIRS, head trauma, and burns), acid/base disorders, acquired immune deficiency syndrome (AIDS), parenteral and enteral nutrition. Offered fall only.

NFS 405 PRINCIPLES OF NUTRITION EDUCATION

2, 1/2

Prerequisites: NFS 316 and NFS 401. Theories and methods of learning communication, and counseling as they apply to nutrition education and counseling settings; development, implementation, and assessment of instructional unit utilizing various forms of multimedia. Offered spring only.

NFS 411 APPLIED MANAGEMENT IN DIETETICS

2, 1/2

Prerequisites: NFS 311. Majors only. Focuses on the principles of health care quantity recipe development, therapeutic modification of recipes and food production, with hands on food preparation opportunities. Students will learn the importance of facility equipment and design. Students will be taught principles of food safety and become ServSafe® certified.

NFS 419 INTRODUCTION TO CLINICAL PRACTICE

2, 2/0

Introduction to medical terminology and abbreviations, use of medical records, medical- record documentation, applying principles of interviewing and counseling to clinical practice, usual hospital diets, and reimbursement for nutritional therapy. Offered fall only.

NFS 420 DIETETIC EXPERIENCE

3, 1/0

Prerequisites: NFS 403. Formalized observation/experience in a variety of health care settings such as clinical, community, food service, regulatory agencies, etc.; research paper and consumer education. Offered spring only.

NFS 430 INTRODUCTION TO NUTRITION RESEARCH

3, 3/0; IN23, RE23

Prerequisites: NFS 402, MAT 311 or ECO 305. An introduction to nutrition research. Students explore various research designs and characteristics of quantitative nutrition studies. Places emphasis on the evidence analysis process with regard to clinical trials and use of information technologies to locate and apply evidence-based guidelines. Offered fall only.

NFS 435 SENIOR RESEARCH SEMINAR

2, 2/0

Prerequisites: NFS 403 and NFS 430. This course explores scientific literature in nutrition including an analysis of the creation of evidence-based guidelines and research presentation formats. Focuses on using literature reviews to apply critical thinking in clinical practice. Offered every spring.

NFS 445 NUTRITION CARE A

3, 0/2

Prerequisites: NFS 302, NFS 315. Corequisites: NFS 316, NFS 401. First in a series of nutritional care courses promoting professional development for dietetic practice. Emphasis on basic skills for a professional role and application of normal nutrition knowledge. Interviewing skills, use of dietary tools and techniques, and planning and teaching nutrition education classes are fostered through observation and practice. Clinical experiences with well individuals throughout the life span provide opportunities for learning and self-evaluation. Clinical dress code required. Offered fall only.

NFS 446 NUTRITION CARE B

3, 0/0

Prerequisite: NFS 445. Corequisite: NFS 402. Second in a series of supervised experiential learning clinical courses organized into three rotations. Students implement the nutrition care process with beginning skills in pediatric acute care, adult tertiary care, and community nutrition counseling settings. Students practice communication appropriate for health care settings. Clinical dress required. Offered every spring.

NFS 447 NUTRITION CARE C

4, 0/0

Prerequisite: NFS 446. Corequisite: NFS 403. Third in a series of experiential learning clinical courses focusing on medical nutrition therapy. Implementation of the nutrition care process with intermediate level skills. Organized in three health care settings. Application of medical nutrition therapy, interprofessional communication, nutrition counseling strategies, and beginning skills in parenteral/enteral nutrition. Clinical dress required. Offered every fall.

NFS 448 NUTRITION CARE D

5, 1/0

Prerequisites: NFS 403 and NFS 447. The fourth in a series of supervised experiential learning clinical nutrition care courses. Emphasis on independence in applying evidence-based medical nutrition therapy including nutrition education to patients in an acute care setting. Clinical experiences include parenteral and enteral nutrition. Clinical dress required. Offered every spring.

NFS 449 NUTRITION CARE E

3, 0/0

Prerequisites: NFS 447. Students provide nutritional care to chronically ill residents in a long-term-care facility, conduct quality improvement evaluations, collaborate with the health -care team, present a group nutrition education class, and attend seminar sessions. For students in the Dietetics Combined Pathway B.S. and M.S. only. Offered every spring.

NFS 450 SENIOR PRACTICUM IN DIETETICS

4, 0/0

Prerequisites: NFS 447 and clinical faculty permission. Co-requisites: NFS 448, NFS 449, and NFS 451. Supervised planning, implementation, and evaluation of professional practice goals in a selected area of dietetic practice, such as acute care, long-term care, nutrition education, or community-service programs; minimal supervision. Clinical dress code required. Offered spring only.

NFS 451 SPECIALTY PRACTICE

1, 0/3

Prerequisites: NFS 447 and co-requisites NFS 448, NFS 449, and NFS 450. Participation in dietetic practice for a selected area. Clinical dress code required. Offered spring only.

NFS 471 EXPERIENCES IN HEALTH CARE FOOD SERVICE SYSTEMS

3, 3/0

Prerequisite: NFS 311. Permission of instructor. Application of knowledge and principles of food systems management in a health care facility. Emphasis on functions of a food service system, human resource management, quality assurance program, and cost analysis activities. Clinical dress code required. Offered summer only.

NFS 495 SPECIAL PROJECT

1-3, 0/0

Special project in Dietetics and Nutrition.

NFS 497 MICRO-COURSE: "PANACHE"--THE FOOD SERVICE PROFESSION

2, 0/0

Special workshop in Dietetics and Nutrition.

NFS 499 INDEPENDENT STUDY

3-12, 0/0

Offered occasionally.

Elementary Education (EDU)

EDU 103 CHILD AND ADOLESCENT DEVELOPMENT AND EDUCATION: AN INTRODUCTION

3, 3/0; SS23

An introduction to child and adolescent development, a broad overview of current educational trends in early childhood, childhood, and secondary education -- as they relate to child development. The course is to assist prospective teachers in choosing which age group of students they are interested in teaching. Offered occasionally.

EDU 121 TUTORING STUDENTS WITH A DIVERSE LANGUAGE BACKGROUND

3, 3/0

Prerequisite: Completion of all general education/IF cognates in math and English with a minimum grade of C. Develops socio-cultural awareness and trains tutors for community-based experiences. Prepares students for experiences and unique interactions between culture and education while providing strategies to help second-language learners access the core curriculum. Offered occasionally.

EDU 189 TOPIC COURSE

1-3, 1/0

EDU 201 INTRODUCTION TO EDUCATION

3, 3/0

Prerequisite: Major Status (CED, ECE, ECC, or CEDW). Introduces students interested in the education profession to school teaching. Application of major theories, consideration of developmentally appropriate practices relative to learning standards, an introduction

to classroom organization, classroom management and discipline, and participation in the reflective writing process are emphasized. A field experience is required. Offered every semester.

EDU 211 INTRODUCTION TO LITERACY

3, 3/0; IN23

This course is designed to teach students current literacy theories and practices supportive of diverse populations and congruent with federal and state learning standards. Offered every semester.

EDU 220 PROGRAMS FOR INFANTS AND TODDLERS

3, 3/0

Prerequisites: Majors; EDU 201, SPF 202, EDU 211. Introduction to the field of early childhood education. Familiarity with the developmental needs and program requirements for infants and toddlers. Students plan developmentally appropriate activities to use with these age groups and implement them in a field placement. Special attention is given to the assessment of young children in the fifty hour field placement. Offered every semester.

EDU 304 WOMEN AND MATHEMATICS

3, 3/0; DI23

Prerequisite: CWP 102. The study of women and mathematics as it relates to career development, bias, stereotypes, anxiety and attitude. An examination of successful women mathematicians, past and present. Insights into the challenges faced by women when studying mathematics and in careers involving mathematics. Offered every spring.

EDU 306 TEACHING MATHEMATICAL CONCEPTS BIRTH - GRADE 2

3, 3/0

Prerequisites: EDU 211, MAT 121 or equivalent. Focuses on methods, principles and strategies for teaching math in early childhood settings. Examines mathematical concepts infused in young children's experiences, the use of mathematical tools in young children's learning, methods for adapting math curriculum for learners with diverse abilities, and the relationship of mathematical learning to all areas of the curriculum. Analyzes assessments that encompass both understanding and procedural skills. Offered every semester.

EDU 310 TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL

3, 3/0; DI23

Prerequisite: EDU 211. Provides an opportunity for teacher candidates to critically examine current trends, issues, and practices relating to the professional standards for integrating social studies content into the elementary school curriculum. Teacher candidates will learn concepts, facts, and tools to implement culturally relevant pedagogy in inclusive and equitable classrooms of diverse learners. Offered every semester.

EDU 311 THE TEACHING OF READING AND THE OTHER LANGUAGE ARTS IN THE ELEMENTARY SCHOOL

6, 6/0; RE23

Prerequisite: Majors; Overall cumulative GPA of 2.5 in these courses: EDF/SPF 202, EDF/SPF 203, EDF/SPF 302; EDU 201, EDU 211 (exceptional education students will substitute EXE 360 for EDU 201). EDU 211 must have a C or higher. Builds methodological practice from the theoretical scaffold of literacy knowledge and teaching established in EDU 211 and the survey course EDU 201. Participation in classroom practice while exploring in-depth curricular, theoretical, and practical educational frameworks. Junior participants apply skills and processes they have learned in previous courses to teach language arts across the curriculum. Students plan, implement and evaluate lessons incorporating the NYS and Common Core Standards for English Language Arts; practice and evaluate assessment tools and processes; become reflective practitioners; demonstrate effective techniques for instructional organization in a Professional Development School. Orientation required. Offered every semester.

EDU 312 THE TEACHING OF SCIENCE AND MATHEMATICS

6, 6/0

Prerequisites: Majors; overall cumulative GPA 2.5 or higher; cumulative GPA of 2.5 in the professional sequence, and a C or higher in EDU 311W. Basic curriculum course for elementary teachers. Students participate in classroom practice while exploring in-depth curricular, theoretical, and practical educational frameworks. Students plan, implement, and evaluate lessons incorporating the NYS and professional organization standards for mathematics, science and technology; practice and evaluate assessment tools and processes; become reflective practitioners; demonstrate effective techniques for instructional organization in a Professional Development School. Offered every semester.

EDU 313 TEACHING SCIENCE IN EARLY CHILDHOOD AND CHILDHOOD SETTINGS

3, 3/0

Prerequisites Grade of C or better in EDU 211. Explore the teaching of science to elementary students guided by learning theory and current practices. Effective science instruction strategies guided by current standards, will be developed and practiced. Offered every semester.

EDU 314 TEACHING READING AND THE OTHER LANGUAGE ARTS IN THE ELEMENTARY SCHOOL
6, 8/0

EDU 315 THE TEACHING OF SOCIAL STUDIES, SCIENCE, AND MATHEMATICS
6, 3/0

EDU 316 TEACHING ELEMENTARY SCHOOL MATHEMATICS
6, 3/0

Pre-requisites: Full majors only; overall minimum GPA of 2.5; professional sequence minimum GPA of 2.5; EDU 311 or EDU 322, for SCE majors only, with a grade of C or better; Math 122 or higher. Basic curriculum course for elementary teachers. Students participate in classroom practice while exploring in-depth curricular, theoretical, and practical educational frameworks. Students plan, implement, and evaluate lessons incorporating the NYS standards for mathematics, science and technology; practice and evaluate assessment tools and processes; become reflective practitioners; demonstrate effective techniques for instructional organization in a professional development school. Offered every semester.

EDU 322 LITERACY INSTRUCTION IN THE ELEMENTARY SCHOOL
3, 3/0; RE23

Prerequisites: EDU 211. Corequisites: EXE 321. Develops knowledge, skills and dispositions to extend the reading and other communication abilities of diverse populations congruent with federal learning standards. Builds upon current theories and practices of literacy instruction introduced in EDU 211 to prepare teacher candidates to implement appropriate literacy methods and instructional strategies in a field setting. Includes development of curricula for children within a balanced literacy philosophy and approach to teaching. Designed to develop observant and reflective practitioners.

EDU 323 FIELD PLACEMENT IN LITERACY METHODS FOR CHILDREN WITH AND WITHOUT DISABILITIES
3, 0/0

Corequisites: EXE 321 and EDU 322. Prerequisites: EXE 100 (minimum grade of C or higher); EXE 221 (minimum grade of C or higher); EDU 211 (minimum grade of C or higher); Exceptional Education Major Status; 2.6 overall GPA; CWP 102; 1 from: ECO 305, MAT 103, MAT 114, MAT 122, MAT 124, MAT 126, MAT 161, MAT 311, PHI 107. Field experience course in literacy methods emphasizing assessment and instructional design and delivery. Includes effective practices for students with typical development, at-risk and with disabilities. Offered every semester.
Equivalent Course: EXE 323

EDU 326 EARLY LITERACY AND LANGUAGE DEVELOPMENT
3, 3/0

Prerequisites: ECE or ECC Majors; Overall and Professional Sequence GPAs of 2.5 or higher, EDU 220, C or higher in EDU 311W. May be taken concurrently with EDU 329. Exploration of principles, practices and materials for providing children, Birth-Preschool, with strong foundation to support early literacy skills and language development. Examines theoretical influences on language development, relationship between oral language and early literacy, children's literature, curriculum and assessment. Consideration of implications for enhanced literacy and language outcomes for all children. Offered every semester.

EDU 327 FUNDAMENTALS OF PLAY
3, 3/0

Prerequisites: EDU 211 and EDU 220. Understanding the essence of play from a socio-cultural perspective. Play's definition and its tenets as they parallel the New York State Common Core Standards for Early Childhood. Play's categories, social stages, and types of development.

EDU 329 INTEGRATED THEMATIC INSTRUCTION FOR YOUNG CHILDREN
6, 6/0

Prerequisites: ECE or ECC Majors; Overall and Professional Sequence GPAs of 2.5 or higher, EDU 211, EDU 220, EDU 311W with a grade of C or higher. Use of knowledge of child development and learning to provide opportunities that support the physical, social, emotional, cognitive, and aesthetic development of preschool, kindergarten, and primary-grade children. Lessons are taught in a Professional Development School. Offered every semester.

EDU 342 TEACHING ELEMENTARY SCHOOL MATHEMATICS

3, 3/0

Pre-requisites: Math 122 or higher; EDU 322 with a grade of C or better; EXE majors only; overall minimum GPA of 2.6; Concurrent enrollment in EXE 344. Mathematics curriculum course for elementary teachers. Students explore in-depth curricular, theoretical, and practical educational frameworks for teaching mathematics. Students plan and evaluate mathematics lessons incorporating the state and national standards for mathematics; explore links among mathematics, science and technology; evaluate mathematics assessment tools and processes; become reflective mathematics teaching practitioners; demonstrate effective techniques for instructional organization in an elementary school. Students read and explain current research in mathematics education at the elementary level. Offered every semester.

EDU 343 FIELD PLACEMENT FOR TEACHING ELEMENTARY SCHOOL MATHEMATICS

3, 3/0

Prerequisite: EXE 321 (minimum grade of C or higher); EDU 322 (minimum grade of C or higher; EXE/EDU 323 (minimum grade of C or higher); Exceptional Education Major Status; 2.6 overall GPA. Corequisites: EDU 342; EXE 344. Field experience course in elementary school mathematics. Students plan, implement, differentiate, and evaluate mathematics lessons; administer and evaluate assessment tools and processes; become reflective practitioners; and demonstrate effective techniques for instructional organization in an elementary school. Students design and implement plans that address elementary student deficits in mathematics.

EDU 349 MIDDLE CHILDHOOD DEVELOPMENT, CURRICULUM AND LEARNING

3, 3/0

Prerequisites: SPF 202 or SPF 303. Explores early adolescence as a unique transition period. Examines middle level student characteristics and critical transformations that take place during these years. Details research-based curriculum for diverse students in Grades 5-9 to promote cognitive, social, emotional and physical development. Analyzes interdisciplinary models and methods for middle-level teaching in content areas. Offered fall and spring.

EDU 375 INTEGRATION OF TECHNOLOGY IN EDUCATION

3, 3/0

Prerequisites: Majors; EDU 211. Provides the pre-service teacher with an awareness of the current range of instructional and adaptive technologies. Emphasis on curricular integration of technology within the general and special education classroom, and connections between instructional technology and the broader role of technology in society. Offered every semester.

EDU 380 INTERNATIONAL PROFESSIONAL DEVELOPMENT SCHOOLS STUDY ABROAD AND SERVICE LEARNING

3, 3/0

Prerequisites: GPA 2.5 or better. This course provides opportunities to globalize understanding and experience of education including education of language learners through study about and travel to an international destination. Topics include history, geography, language, and culture of the target country; pedagogical tools for working with language learners; intercultural competency; political and global interactions; comparative education study; keys to reflective practice. Offered each semester in conjunction with extended-semester study away initiative.

EDU 389 TOPICS IN CHILD ABUSE: THE ROLE OF THE CLASSROOM TEACHER

1-3, 0/0

EDU 400 PRACTICUM IN ELEMENTARY TEACHING I

6, 0/6

Prerequisites: Majors; Minimum overall cumulative GPA of 2.5; minimum grade of C in teaching methods courses related to specific major (EDU 311 or EDU 311W, and EDU 316 or EDU 329). Minimum GPA of 2.5 in major courses, successful completion of English composition/basic communication and mathematics competency requirements. Intended as the teacher candidate's culminating experience. This is the first supervised teaching experience of two school settings at two developmental levels five full days a week for approximately seven to eight consecutive weeks. Teacher candidates are required to effectively demonstrate content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflective practice. Extension teacher candidates will take EDU 404 and their extension student teaching course. Exceptional Education majors will take EDU 404 and their EXE student teaching course. Early Childhood and Combined Early Childhood/Childhood majors will take EDU 400 and EDU 410. Offered every semester.

EDU 401 PRACTICUM IN TEACHING: INTERMEDIATE

6, 0/6

Prerequisites: Majors . Minimum cumulative GPA of 2.5; minimum grade of C in methods courses related to respective major (EDU 310, EDU 311, EDU 312 or EDU 316); minimum cumulative 2.5 GPA in major courses; successful completion of English

composition/basic communication and mathematics competency requirements. Intended as the teacher candidate's culminating experience. Supervised teaching in elementary grades five full days a week for approximately seven to eight consecutive weeks. Individual conferences and seminars with college supervisor. Tutorial and group instruction. Daily and long-range planning, teacher-pupil planning, unit teaching, audiovisual aids, classroom management, record keeping, evaluation techniques. Offered every semester.

EDU 402 SEMINAR IN EDUCATION

1-3, 1/0

Nature and function of a philosophy of education. Teaching research methods and techniques, crucial issues in education, problems of beginning teachers. To be taken concurrently with EDU 400, EDU 401, EDU 404 and/or EDU 410. Required for all childhood, early childhood, and combined education majors. Offered every semester.

EDU 404 PRACTICUM IN ELEMENTARY TEACHING FOR EX ED & MIDDLE SCHOOL EX STUDENTS

6, 0/0

Prerequisites: Extension and Exceptional Education majors only. Minimum cumulative GPA of 2.5; minimum grade of C in teaching methods courses (EDU 310, EDU 311, and EDU 312 or EDU 316). Minimum GPA of 2.5 in professional sequence/major courses. For elementary education teacher candidates seeking certification in childhood/exceptional education, or childhood with a middle school extension. Intended as the teacher candidate's culminating experience. Supervised teaching experience in an elementary grade setting five full days a week for approximately seven to eight consecutive weeks. Teacher candidates are required to effectively demonstrate content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflective practice. Offered every semester.

EDU 405 PARENT-INFANT EXPERIENCE

3, 3/0

EDU 410 PRACTICUM IN EARLY CHILDHOOD TEACHING

6, 0/6

Prerequisites: Early Childhood and Combined Education Majors only. Minimum cumulative GPA of 2.5; minimum grade of C in methods courses related to respective major (EDU 220, EDU 311, EDU 329); minimum cumulative 2.5 GPA in major courses; successful completion of English composition/basic communication and mathematics competency requirements. Intended as the teacher candidate's culminating experience. Provides supervised teaching experience in an early childhood classroom five full days per week for approximately seven to eight consecutive weeks. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice. Offered every semester.

EDU 411 PARENTS, SCHOOLS, AND COMMUNITY

3, 3/0

Prerequisite: EDU 311 or EDU 311W with a minimum grade of C. Early childhood and combined childhood/early childhood majors only; this course may be taken concurrently with student teaching or in a previous semester. Designed to assist students in building partnerships among parents, schools, and diverse communities. Students will learn how to collaborate with families and implement family involvement strategies during student teaching. Special attention will be given to linking families with services offered in the school and community. Offered every semester.

Equivalent Course: EDU 420

EDU 416 TEACHING LITERACY IN MIDDLE AND SECONDARY SCHOOLS

3, 3/0

Prerequisites: Majors, upper division status. Special problems in reading encountered in middle and secondary schools. Includes the reading process, reading skills, and techniques for assessing developing reading skills. Special emphasis on critical reading in content areas. Offered every semester.

EDU 417 ADOLESCENT LITERACY

3, 3/0

Prerequisites: EDU 416 or equivalent; upper division status. Literacy development of adolescents in multiple contexts. Topics will include adolescents' multiple literacies, assessing literacy abilities, use of technology and materials other than textbooks, integration of literacy across disciplines, and strategies for working with struggling students, English learners, students with disabilities, and advanced students. Offered every semester.

EDU 420 ISSUES IN EARLY CHILDHOOD

3, 3/0

Prerequisites: Junior/Senior Status, EDU 220. Explores current issues and trends in early childhood education, their sources and impact on best practices in the early childhood classroom related to expectations, curricula, assessment, and other initiatives. Evaluates implications for early childhood programs/settings, diverse families and communities. Emphasizes the historical and political context for change and advocacy for sound educational practices and policies for the future.

EDU 483 BSC LED STUDY AWAY PROGRAM

1-15, 0/0

Acceptance into the program required.

EDU 488 INTERNSHIP IN NON-SCHOOL SETTINGS

0, 0/0

EDU 495 SPECIAL PROJECT

1-6, 0/0

EDU 497 SPECIAL COURSE

1-3, 1/0

EDU 499 INDEPENDENT STUDY

3-12, 0/0

Offered occasionally.

Engineering Technology (ENT, SAF, TEC)

ENT 100 THE AGE OF ENERGY

3, 3/0

Energy needs of society and the drive to use renewable energy sources and more efficient forms of transportation; technological, societal, ethical, and economic impact of societies' energy needs; impact on quality of life issues; hands-on student team projects focusing on solar, wind, hydro; increased efficiency topics such as hybrid/electrical vehicles and house lighting. Offered occasionally.

ENT 101 TECHNICAL DRAWING

3, 0/0

Survey of projection theory, multi-view projection, spatial relationships, and visualization of point, lines, planes and solids; size and shape description through sketching, and computer-aided drawing; standards and conventions, auxiliary views, revolutions, tolerance, dimensions, geometric tolerances, and pictorials. Offered occasionally.

ENT 102 INTRODUCTION TO EQUATION-SOLVING SOFTWARE

1, 1/0

Use of current industry-standard computer software programs that allow users to enter and manipulate mathematical equations; perform calculations; and analyze, plot, and document data. These engineering software programs are invaluable tools to technology majors, who combine engineering principles with mathematics to describe physical phenomena. Offered fall only.

ENT 104 ESSENTIALS OF ELECTRICAL ENGINEERING TECHNOLOGY

3, 2/3

Introduction to the field of Electrical Engineering Technology for majors and non-majors; Introduction to basic electricity, mathematical modeling of circuits, circuit breadboards, electrical instrumentation, computer analysis/circuit simulation and technical reporting. Emphasizes projects, project management and the need for teamwork by conducting projects in the areas of design, simulation and test. Required of all freshmen electrical engineering technology majors. Junior-transfer students will substitute a technical-elective course for ENT104. Offered fall only.

ENT 202 INTRODUCTION TO ENGINEERING ECONOMICS AND PROJECT MANAGEMENT

1, 1/0

Prepares students to estimate, plan, and manage projects. Provides exposure to techniques to better prepare students for problems seen in industry. Offered fall only.

ENT 213 COMPUTER METHODS FOR TECHNOLOGISTS

3, 3/0

Co-requisite: MAT 162 or MAT 127. The applications of commercial software for solving technical problems and performing office functions, including entering and manipulating mathematical functions and equations, analyzing and graphing data, performing symbolic and numerical calculations, and scheduling and managing project. Focuses on the analysis and solution of problems in engineering and technology. Offered every semester.

ENT 221 NANOSCALE SCIENCE, ENGINEERING, AND IMPLICATIONS

3, 3/0

Prerequisites: MAT 162 or MAT 127, PHY 107 or PHY 111, CHE 101 or CHE 111. Overview of the nanoscale world that pervades our lives; fundamental concepts in materials properties and structure; dynamics in the nanoscale that include atomic interactions and energy kinetics; nanoengineering utilized in fabrication and characterization technologies; social implications of nanoscale materials and technology, including ethical, legal, and environmental impacts. Offered occasionally.

ENT 295 INDEPENDENT PROJECT

1-3, .25/.75

Prerequisite: Instructor permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered Occasionally.

ENT 300 MATHEMATICS APPLICATIONS IN ENGINEERING TECHNOLOGY

3, 3/0

Prerequisite: MAT 127 or MAT 162. Application of algebra, analytic geometry, calculus and ordinary differential equations to problem solving in engineering technology. Introduction to first and second-order differential equations including methods of Laplace transforms, numerical solutions of ordinary differential equations, eigenvalues, eigenvectors, probability, and partial derivatives. Offered every semester.

ENT 301 MECHANICS I

3, 2/3

Prerequisites: MAT 126 or MAT 161 and PHY 107 or PHY 111 or equivalent. Basic principles and applications of statics; equilibrium of rigid bodies, freebody diagrams, friction, centroids, moments of inertia, trusses, frames and machines, and equilibrium of particles. Offered every semester.

ENT 302 MECHANICS II

3, 2/3

Prerequisites: ENT 300 or MAT 315. Principles of dynamics applied to the forces on and motion of rigid bodies and particles; kinematics, kinetics, and energy and momentum methods for both particles and rigid bodies; introduction to mechanical vibration included. Offered every semester.

ENT 303 KINEMATICS

3, 2/3

Prerequisite: ENT 302. Relative motion of machine parts; graphical and analytical techniques presented for position, velocity and acceleration analysis of linkages, chains, rolling bodies, gears and miscellaneous. Offered spring only.

ENT 311 THERMODYNAMICS

3, 2/3

Prerequisite: ENT 301. Basic principles of classical thermodynamics and their applications to various engineering technology areas; technical applications of heat-power systems, refrigeration systems, combustion and psychometrics, and HVAC systems. Offered fall only.

ENT 312 FLUID MECHANICS

3, 2/3

Prerequisite: ENT 311. Introduction to the basic phenomena and principles of fluid flow; fluid properties, fluid statics, conservation of mass, and energy; study of the basic fluid mechanics concepts to the analysis of pipe and duct flow; measurement of fluid properties, pressures, velocities, and forces. Offered spring only.

ENT 314 SOLID MODELING

3, 2/3

Prerequisites: TEC 101, ENT 301. Three-Dimensional (3D) parts and assembly creation; defining high-level features like cuts and holes in addition to low-level geometry; using parametric modeling; 3D solid modeling; analyzing solid models with finite element technique for stress and heat testing; applying solid models on rapid prototyping machines. Offered every semester.

ENT 321 ANALYSIS OF MANUFACTURING PROCESSES

3, 2/3

Prerequisites: TEC 201 or ENT 201 and MAT 126 or MAT 161 (or equivalent). Quantitative analysis of materials processing and manufacturing; casting processes; stress-strain relationships; bulk deformation; sheet metal forming; powder metallurgy; machining and joining processes; surface modifications and nontraditional manufacturing processes. Offered occasionally.

ENT 330 ELECTRICAL CIRCUITS ANALYSIS I

3, 2/3

Corequisite: PHY 108 (or PHY 112). Direct Current (DC) electric circuit concepts; basic circuits elements and their characteristics; analysis of series and parallel circuits; modeling and analysis of DC circuits with multiple sources; electrical instrumentation and computer analysis tools used in performing laboratory experiments. Required for all electrical engineering technology majors. Offered every fall semester.

ENT 331 ELECTRICAL CIRCUITS AND DEVICES

3, 3/2

Prerequisites: PHY 107 or PHY 111 or equivalent. Introduction to electrical circuit concepts, both DC and AC; analysis of series and parallel circuits; use of superposition theorem to analyze electric circuits with multiple sources; electrical instrumentation and computer analysis tools used in performing laboratory experiments. Required for non-electrical engineering technology majors. Credit is issued for either ENT 331 or ENT 330, but not for both. Offered every semester.

ENT 332 ELECTRICAL CIRCUITS ANALYSIS II

3, 3/2

Prerequisites: ENT 330 or equivalent. Alternating Current (AC) electric circuit concepts; waveform analysis; analysis of series and parallel AC circuits; electrical instrumentation and computer analysis tools used in performing laboratory experiments. Required for all electrical engineering technology majors. Offered every spring semester.

ENT 335 INDUSTRIAL ELECTRONICS

3, 2/3

Prerequisite: ENT 331. Essential industrial machines and automation topics, such as discrete and analog process control, switches and sensors, control systems, industrial controls, LabView, programmable logic controllers, and data acquisition. Laboratory exercises provide practical applications of the industrial electronics that engineering technology graduates are likely to encounter. Offered fall only.

ENT 340 BUILDING INFORMATION MODELING (BIM) USING REVIT MEP

3, 3/2

Prerequisites: ENT332 or ENT331, or instructor permission. Building Information Modeling software facilitates users to design a building and its elements, such as mechanical, electrical, and plumbing (MEP) systems in 3D and involves drawing techniques for 3D parametric solid modeling of MEP systems of buildings, enabling coordination and change management in design documentation extensively used in industry. Offered every spring semester.

ENT 341 ELECTRONICS

3, 3/2

Prerequisite: ENT 330. Corequisite: ENT 332. Introductory analysis of electronic circuits, with emphasis on semiconductor devices. Offered spring only.

ENT 342 ADVANCED CIRCUIT ANALYSIS

3, 3/0

Prerequisites: ENT 300 and ENT 332. Signal analysis, circuit parameter, time domain circuit, steady state and transient solution, Laplace transforms and applications, topics in frequency domain, network functions, theorems, sinusoidal steady state analysis from pole-zero plots. Introduction to network synthesis. Offered spring only.

ENT 345 DIGITAL SYSTEMS

3, 2/3

Corequisite: ENT 341. Digital logic systems are a major part of modern electrical technology including applications in computers, manufacturing and the communication revolution currently taking place. This is an introductory level course required for all Electrical Engineering Technology majors. Offered spring only.

ENT 346 MICROCONTROLLERS

3, 2/3

Prerequisite: ENT 345 and CIS 151. This course introduces the theory and application of microprocessors and microcontrollers and develops proficiency in programming Assembly and C languages, interfacing, as well as prototyping and troubleshooting. Offered fall only.

ENT 350 ELECTRICAL CODES AND STANDARDS

3, 3/0

Prerequisites: ENT 332, or ENT 331 or equivalent. Electrical codes and standards are the strict set of rules and represent the established set of standards and practices that must be followed during design, operation and maintenance of electrical installations, what redundancies need to be in place, and what methods and protocols must be followed. Offered occasionally.

ENT 351 ANALOG CIRCUITS ANALYSIS

3, 2/3

Prerequisites ENT 341 and ENT 342. Analyze, troubleshoot, and design foundational circuits employing operational amplifiers (op amp) and other electronic devices; establish proficiency with electronic circuit computer analysis tools and electronic instrumentation. Required for Electrical Engineering Technology, Electronics majors. Offered every fall semester.

ENT 360 SMART BUILDINGS AND ENERGY EFFICIENCY

3, 2/3

Prerequisites: ENT 345 or instructor permission. Control techniques of various building systems, including but not limited to heating, ventilation, lighting, elevators, security, and energy management. Energy efficiency along with metering, integration of renewables, distributed generation, computational analytics, and service considerations. Offered occasionally.

ENT 361 PROGRAMMABLE LOGIC CONTROLLERS (PLCs)

3, 2/3

Prerequisite: ENT 331 or TEC 314 or equivalent. A comprehensive treatment of programmable logic controllers (PLCs). Prior knowledge of PLCs is not required. Familiarity with the DOS or MS Windows operating systems is helpful. The standard PLC programming languages are examined: ladder logic, sequential function charts, function block diagrams, instruction lists, structured text, and high-level languages such as Basic, Pascal and C. Numerous laboratory exercises with four PLC brands give students broad exposure to programming, troubleshooting, networking, and PLC system design and startup. Offered occasionally.

ENT 365 MANUFACTURING SYSTEMS DESIGN

3, 3/0

Prerequisite: ENT 321. Introduction of product development; production control; requirements and selection of machines/labor; material handling equipment selection; storage and warehousing; computer-aided plant layout; site selection and location; facility location analysis and its impact on manufacturing. Offered occasionally.

ENT 371 ELECTRIC MACHINES

3, 2/3

Prerequisite: ENT 332. DC and AC machines and transformers are studied as an integral part of electric power systems. Single and three-phase induction and synchronous machines, DC motors and fractional horsepower motors, including stepper motors. Solid-state motor control; computer tools for study of motor performance. Laboratory experiments illustrate motor performance and measurement techniques. Offered fall semester.

ENT 392 MATERIAL SELECTION AND DESIGN FOR MANUFACTURING

3, 2/3

Prerequisites: ENT 301, ENT 321, and TEC 311. Introduction to materials properties for design of structures and components, design/selection/failure of materials, and selection of ferrous/nonferrous/ceramics and polymeric materials. Offered occasionally.

ENT 401 STRESS ANALYSIS

3, 2/3

Prerequisites: ENT 300 or MAT 315. Techniques used to predict stress and strain caused by loads or other effects in structural members and machine elements; use of analytical, numerical and experimental methods. Offered fall only.

ENT 402 SHOCK AND VIBRATION ANALYSIS

3, 2/3

Prerequisites: ENG 302, ENT 401 and junior or senior status. Theoretical, analytical, and experimental methods used in the analysis of shock and vibration in machine elements and structures; free and forced vibration of one and multidegree of freedom systems with introduction to lumped parameter systems and continuous systems; familiarity with instrumentation and experimental techniques developed by performing hands-on laboratory experiments. Offered spring only.

ENT 404 DESIGN OF AUTOMATED MANUFACTURING SYSTEMS

3, 2/3

Prerequisites: ENT 361 and ENT 392. Design for automation; mechanization of parts handling; automated manufacturing and assembly; numerical control and CAD/CAM; industrial robots and implementation, machine vision, microprocessors, principles of lean manufacturing, computer integrated manufacturing, and automated factory. Offered occasionally.

ENT 411 HEAT TRANSFER

3, 2/3

Prerequisite: ENT 312. Heat transfer and its application to various engineering technology areas; extension of thermodynamics and fluid flow analysis. Topics include conduction, convection, radiation, and current areas. Offered fall only.

ENT 414 MANUFACTURING ANALYSIS

3, 3/0

Prerequisite: Upper-division status in ENT or TEC. Analysis of product design and development, economic analysis, break-even analysis, life cycle approach, capacity planning, manufacturing operations economy, allocation of resources, human factors, machines and maintenance, quality control and assurance, measurement of productivity and its effects on manufacturing economics. Offered occasionally.

ENT 420 PROFESSIONAL EXPERIENCE IN MECHANICAL ENGINEERING TECHNOLOGY

1, 1/0

Corequisites/Prerequisites: ENT 411, ENT 421, ENT 335.

Prerequisites: ENT 401, ENT 331, ENT 311, ENT 312, ENT 301, ENT 302, TEC 311 and TEC 201. Exposure to professional engineering design concepts/methodologies; MET portfolio development and evaluation of MET subject matter necessary for the senior design project; senior design project proposal development. Required for mechanical engineering technology program. Offered fall only.

ENT 421 MACHINE DESIGN I

3, 2/3

Prerequisites: ENT 303 and ENT 401. Techniques used to design and specify machine elements, i.e., shafts, springs, fasteners, belts, clutches, brakes, chains, bearings, gears, cams, etc. Offered fall only.

ENT 422 MACHINE DESIGN II

3, 2/3; IN23, RE23

Prerequisite: ENT 420. Advanced topics in machine design. Students design a major project involving preliminary analysis, working drawings, fabrication, and testing of a prototype. Required for mechanical engineering technology majors. Offered spring only.

ENT 433 MICROPROCESSOR APPLICATIONS AND ROBOTICS

3, 3/2

Prerequisite: ENT 346. Theoretical and practical background of the technology used in the application of microprocessors. Programming hardware, interfacing, and application of microprocessors. The elements of robotics with emphasis on the construction and programming of robots. Offered occasionally.

ENT 441 COMMUNICATION TRANSMISSION TECHNOLOGY

3, 2/3

Prerequisite: ENT 332 and senior status. Introduction to the development and technology of digital, RF, microwave and optical fiber communications including transmission line types and characteristics, components, measurement of reflections, power, impedance, and wavelength. Signal structure and protocols used in data communications; computer analysis and design of digital and carrier communication circuits. Offered fall only.

ENT 442 RF AND MICROWAVE COMMUNICATIONS

3, 2/3

Prerequisite: ENT 441. Introduction to wireless communication technology. Free-space and near-earth propagation effects, including RF safety, multipath, and antennas are covered. Receiver and transmitter design, components, and performance. Emphasis on digital representation of signals and transmission of digital data, types of modulation and channel capacity; systems and applications. Offered spring only.

ENT 445 POWER ELECTRONICS

3, 3/0

Prerequisites: ENT 332, ENT 341 (could be taken as corequisite). The operation of modern, high-power electronic devices as applied to controls, electric machines, and power systems; power diodes, silicon-controlled rectifiers, thyristors, BJTs, MOSFETs, and IGBTs; applications to rectifiers, inverters, controlled rectifiers, AC voltage control, DC step-up and step-down systems, high-voltage DC (HVDC), and flexible AC transmission systems (FACTS); perform laboratory experiments using electrical instrumentation and computer analysis tools; required for smart grid option of electrical engineering technology majors. Offered spring only.

ENT 446 DIGITAL SYSTEMS DESIGN AND ANALYSIS

3, 2/3

Prerequisite: ENT 346. Study of Field Programmable Gate Arrays (FPGAs) and their Hardware Description Languages (HDLs), used in connection with advanced industry technologies. This includes exposure to microcontrollers for smart devices, serial communication, and survey of smart sensors. Required for Electrical Engineering Technology, Electronics majors. Offered every spring.

ENT 452 ANALOG SYSTEMS DESIGN AND ANALYSIS

3, 2/3

Prerequisites ENT 351. Advanced operational amplifiers (op amp) and linear integrated circuits (IC) applications including analog filters, analog-digital and digital-analog converters, pulse circuits, wave-shaping circuits; analysis of frequency-dependent circuits; sensor interfacing; non-ideal op amp properties; introduction to analog integrated circuit design and printed circuit board (PCB) layout considerations. Required for Electrical Engineering Technology, Electronics majors. Offered every spring semester.

ENT 461 CONTROL SYSTEMS I

3, 3/2

Prerequisites: ENT 341, ENT 342, and senior status. Applies frequency domain techniques to open-loop and closed-loop systems with emphasis on stability and performance. Classical methods of control engineering are presented: Laplace transforms and transfer functions, root locus analysis, Routh-Hurwitz stability analysis, steady-state error for standard test signals, and second-order system approximations. MATLAB is introduced and utilized extensively for computer-aided analysis. Laboratory exercises provide practical application of the control-system theory. Offered fall only.

ENT 462 CONTROL SYSTEMS II

3, 2/3

Prerequisite: ENT 461. Corequisite: ENT 466. Project centered. Students build, tune, simulate, and model a system (such as a magnetic levitation apparatus) for the purpose of demonstrating skills acquired during previous academic work. Project focuses on practical application of the control-system theory developed in Control Systems I. Offered spring only.

ENT 465 ELECTRICAL DESIGN I

3, 2/3; IN23, RE23

Co-requisite: ENT 461 and Instructor permission. Advanced topics in electrical and system design, the design process, and project management; a major design project sequence that includes preliminary analysis, working drawings and schematics; preliminary design and its presentation. Offered fall only.

ENT 466 ELECTRICAL DESIGN II

3, 2/3

Prerequisite ENT465. Corequisite: ENT462. Advanced topics in electrical and system design, the design process, and application of project management; a major design project sequence that culminates with final analysis, working drawings, schematics, and installation or prototype; final design stages of construction, testing and installation of a significant engineering project. Offered every spring semester.

ENT 471 POWER SYSTEMS I

3, 2/3

Prerequisites: ENT 332 Electric Circuits and senior standing. Basic elements of power systems. Energy sources. Balanced three-phase circuits. Power factor correction. Voltage regulation. Transmission line modeling. Per-unit system. Balanced fault analysis. Load flow analysis using numerical methods. Electric power distribution economics. Offered fall only.

ENT 472 POWER SYSTEMS II

3, 2/3

Prerequisites: ENT 471 Power Systems I. Calculate electric demand of a power system. Solve line faults using symmetrical components. Use equal area criterion to solve simple stability problems. System protection. Electromechanical and numeric relays and their applications. Voltage quality and reliability. Design of a power distribution system for industrial facility. Offered spring only.

ENT 473 PLANNING AND OPERATION OF ELECTRIC VEHICLES IN SMART GRID

3, 3/0

Prerequisite: ENT 471 or instructor's permission. This course introduces and explains the latest advancements in the planning and operation of electric vehicles (EV) in smart grid from local electric distribution company's, electric generation company's, and EV aggregator's point of views. The problems such as charging station sizing, charging station placement, and EV's charging management are studied considering the technical specifications of EVs. Offered occasionally.

ENT 481 RENEWABLE DISTRIBUTED GENERATION AND STORAGE

3, 2/3

Prerequisites: ENT 331 Electric Circuits or equivalent or ENT 332 or instructor's permission. This course introduces renewable and efficient electric power systems. It encourages self-teaching by providing numerous practical examples requiring quantitative analysis. Topics include historical, regulatory, and utility industry perspectives of the electric system as well as most of the electricity, thermodynamics, and engineering economics background needed to understand new power technologies. Offered every spring semester.

ENT 482 SMART GRID FROM SYSTEMS PERSPECTIVE

3, 2/1

Prerequisites: ENT 331 or equivalent, and ENT 471 or instructor's permission. A comprehensive understanding of smart grid is needed for stakeholders to enable them to develop systems prospective of Smart Grid and its technologies, increase modeling of Smart Grid from multiple perspectives, to increase economic understanding and decision making around current and future technologies, to understand the role of policy and politics in the advancement of Smart Grid over time, to understand how to educate others in Smart Grid, and to understand basic subsystems of the Smart Grid. Offered occasionally.

ENT 491 OPERATIONS AND MANAGEMENT OF MODERN GRID

3, 3/0

Prerequisites: Senior status or instructor's permission. This course introduces and explains operations of electric utilities including generation, transmission, distribution, and consumption of electric power, defines system operations and their drivers; discusses impact of deregulation and impact of smart grid technologies on systems operations; introduces concepts of business of system operations, and discusses various management systems used by modern utilities. Offered occasionally.

ENT 495 SPECIAL PROJECT

1-3, 0/0

Offered spring only.

ENT 497 WORKSHOP

1-3, 0/0

Offered occasionally.

ENT 499 INDEPENDENT STUDY

3-12, 0/0

Offered every semester.

Safety Studies (SAF)

SAF 305 FUNDAMENTALS OF SAFETY

3, 3/0

Fundamentals of accident prevention as applied to areas of living, with consideration of human and environmental factors, legal aspects, and home and fire safety. Offered Every Semester.

SAF 310 PERSONAL SAFETY AND FIRST AID

3, 3/0

Personal accident-prevention skills and techniques. Basic instruction in emergency medical care. Emphasis on recreational, occupational, industrial, and daily-life routines. Standard first aid and personal safety certificate awarded upon successful completion. Offered fall only.

SAF 320 PRODUCT SAFETY

3, 3/0

Product safety, agencies that control the manufacture and distribution of dangerous products, product safety laws and legal liability, product-injury data, evaluative criteria, product testing, determining standards for safety. Offered spring only.

SAF 333 OCCUPATIONAL SAFETY

3, 3/0

Hazards in the workplace, with emphasis on various accident-prevention methods and techniques for employees and management; The Occupational Safety and Health Act (OSHA) of 1970. Offered occasionally.

SAF 340 COMMUNITY SAFETY

3, 3/0

Human and environmental factors affecting community safety, accident prevention and control principles, agencies and organizations, safety laws and ordinances, standards and codes, legal liability and insurance, disaster and emergency medical care, safety in places of public assembly, recreational facilities, transportation systems. Required for safety minors. Offered fall only.

SAF 360 INDUSTRIAL HYGIENE

3, 3/0

Introduction to industrial hygiene; detection, recognition, evaluation, and control of factors emanating from a workplace that may impair health, cause discomfort, illness, or disease, and/or reduce efficiency of workers and the community. Offered fall only.

SAF 431 ORGANIZATION, ADMINISTRATION, AND SUPERVISION OF INDUSTRIAL ACCIDENT PREVENTION PROGRAMS

3, 3/0

Prerequisite: SAF 430. Methods and techniques of efficient industrial accident-prevention programs; corporate responsibility, employee responsibility, and complex psychological relationships that affect the typical program. Offered occasionally.

SAF 450 MOTOR FLEET SAFETY MANAGEMENT

3, 3/0

Fleet management techniques and their application; scope and functions of the motor fleet safety supervisor; federal, state, and local laws and regulations; selection and maintenance of equipment; customs and public relations. Offered occasionally.

SAF 499 INDEPENDENT STUDY

3, 0/0

Offered occasionally.

Technology (TEC)

TEC 101 TECHNICAL DRAWING

3, 2/3

Drawing techniques and part modeling techniques for 3D parametric solid modeling systems; multiview projections using 2- and 3-D geometry, drawing annotation including text, dimensioning and layouts of a variety of drawing types suitable for plotting to scale; part modeling techniques including Industry-standard parametric modeling; introduction to geometric dimensioning and tolerancing; required for industrial technology, electrical engineering technology (smart grid), mechanical engineering technology, and technology education majors. Offered Every Semester.

TEC 150 TECHNOLOGY IN EVERYDAY LIFE

3, 3/0

The applied physics and technology involved in everyday life in order to gain an understanding of basic science and engineering principles; Newton's laws of motion as they apply to an ice skater and bumper cars; principles of fluid mechanics like water flowing from a garden hose and the buoyancy of ships; heat transfer and phase transitions like water in its three phases and home heating systems; thermodynamic efficiency of automobile engines as well as air conditioners; resonance and mechanical waves developed by music instruments; basic electricity and its many applications from how it is produced by water and wind to how it is used to produce light; light and optics, for example, splitting the colors of sunlight to focusing light in a camera lens. Offered occasionally.

TEC 200 TOTAL QUALITY MANAGEMENT

3, 3/0

Prerequisite: Sophomore status. Fundamental concepts of total quality management; managerial commitment; organization mission and structure; quality problem-solving tools; variation, quality costs; vendor-customer relationships; quality evaluation techniques; quality philosophies of Deming, Crosby, and others. Offered fall only.

TEC 201 MATERIALS PROCESSING

3, 2/3

Prerequisite: TEC 101. Processes and problems associated with the conversion of materials into useful forms and goods; laboratory activities exemplify the major processes studied. Offered Every Semester.

TEC 253 FUNDAMENTALS OF BOAT BUILDING

3, 0/6

TEC 260 DEVELOPMENT OF TECHNOLOGY

3, 3/0

The history of science and technology; the evolution of technology and its effects on humanity, for example, advances in agriculture and health care; era-specific technology such as weapons developed for defense and building processes to construct small communities and large cities; evolution of energy and power leading to current alternatives such as solar energy, wind power, hydroelectric power, fuel cells, and biomass energy; how technology has affected and been affected by ecology, climatology, health care, ethics, war, and politics. Offered occasionally.

TEC 301 MATERIALS PROCESSING II

3, 2/3

Prerequisite: TEC 201. Continuation of TEC 201. Emphasis on numerical controlled and computerized numerical controlled materials processing. Offered occasionally.

TEC 302 CAD/CAM (COMPUTER AIDED DRAFTING/COMPUTER AIDED MANUFACTURING)

3, 2/3

Prerequisites: TEC 101 and TEC 201. Using computers to facilitate the production processes of designing, drafting, production planning, cost estimating, and materials processing; using CAD software to create the database for part geometry, material selection, and process requirements; using CAM software to control machines, directly or indirectly, to produce the product. Offered fall only.

TEC 311 MATERIALS SCIENCE AND TESTING

3, 2/3

The origin of composition of industrial materials: metals and their alloys, woods, fuels, lubricants, cutting fluids, solvents, protective compounds or coatings, inks, adhesives, plastics, and ceramics; applications of testing procedures for identification and determination of physical and chemical properties suitable for specific industrial uses. Offered Every Semester.

TEC 312 MATERIALS MANAGEMENT

3, 2/3

Prerequisite: TEC 201. Production planning and control functions in industry; techniques and procedures of production planning, scheduling, dispatching, and control. Required for industrial technology majors. Offered spring only.

TEC 313 STATISTICAL QUALITY CONTROL

3, 3/0; IN23

Fundamentals of probability; sample space, events, probability distributions; binomial, Poisson, and normal distributions; application of probability in quality control; variable and attribute control charts; process capability studies; acceptance sampling; standard tables for sampling plans. Offered fall only.

TEC 314 ELECTROMECHANICS

3, 2/3

Fundamental laws of electric circuits; DC and AC circuits, application to electric power systems and electronics industry; fundamentals of electrical machinery, introduction to three-phase systems; laboratory experiments with electrical circuits and devices. Offered Every Semester.

TEC 319 TECHNOLOGY AND VALUES

3, 3/0

Prerequisite: Upper-division status. Social and ethical impacts of technology; the often conflicting roles of historical and current creators and users of technology; examination of selected current technical-ethical issues of societal importance. Offered occasionally.

TEC 321 MEASUREMENT SYSTEMS

3, 3/0

Prerequisite: TEC 313. Theory and application of measurement; tolerancing, variable, and attribute measurement devices; gauge variation, automated measurement input equipment, and gauge control systems. Offered fall only.

TEC 323 QUALITY IMPROVEMENT THROUGH DESIGN OF EXPERIMENTS

3, 3/0

Prerequisite: TEC 313. Various experimental designs applied to a manufacturing environment. One-, two-, and three-factor factorial designs; nested, partially nested, and repeated designs; simple and multiple linear regression techniques presented to enhance quality problem-solving ability. Offered spring only.

TEC 351 ENERGY SYSTEMS

3, 3/0

Prerequisites: MAT 124 and PHY 107. Energy and power from sources through conversion systems and mechanisms to the application of power for manufacturing. Offered fall only.

TEC 400 MARKETING

3, 3/0

Prerequisite: Upper-division status. Conceptual framework for marketing; the movement of goods and services through channels from source to consumer; product formulation; market research; prudent pricing; distribution channels; promotion systems. Industrial technology (manufacturing option) majors. Offered occasionally.

TEC 402 ERGONOMICS

3, 3/0

Prerequisite: Upper-division status. The interaction of people and machines; development and use of human factors information including sensory, cognitive, and psychomotor processes as they influence the design of displays, controls, and work space; environment and safety considerations necessary to achieve desired machine outputs. Offered fall only.

TEC 403 SYSTEMS ANALYSIS

3, 3/0; RE23

Prerequisite: Upper-division status. Fundamental concepts and analytical techniques of systems analysis; trends related to modeling, computer technology, feedback, and information systems; quantitative methods and their use in decision making in practical situations involving industrial, managerial, and technological settings. Offered spring only.

TEC 404 INDUSTRIAL SYSTEMS APPLICATIONS

3, 2/3

Prerequisite: Upper-division status. Investigation of management science and communication principles leading to a series of hands-on laboratory projects, case studies, and group problem-solving/decision-making activities; building positive management communications abilities as applied to the components of contemporary work settings; cultivation and personalization of leadership behaviors such as team building, coaching, and conflict resolution. Offered fall only.

TEC 405 MANUFACTURING TECHNOLOGY

3, 2/3

Prerequisites: TEC 312 and final semester senior status. Hands-on experience in the manufacturing cycle of a product from the engineering drawing stage through project and processing planning, prototype manufacture and testing; experience in setting time standards and taking time studies. Offered spring only.

TEC 430 INTRODUCTION TO COMPUTER-AIDED DRAFTING (CAD)

3, 0/0

TEC 460 PRODUCTION AND OPERATIONS MANAGEMENT

3, 0/0

Equivalent Course: BUS 460

TEC 465 SAFETY MANAGEMENT

3, 3/0

Prerequisite: Upper-division status. Development of the industrial safety movement; psychology in accident prevention; appraisal of accident cost factors, severity, and frequency; job safety analysis and corrective measures; plant inspection and preventive maintenance; storage and handling of materials; fire prevention; education and training of employees. Offered spring only.

TEC 488 QUALITY INTERNSHIP

1-12, 3/0

Prerequisite: Completion of 12 credit hours in quality minor or all TEC-prefixed courses in industrial technology quality option. Analysis of a quality problem at a local manufacturing/ service organization on or off campus; evaluation is based on a formal written and oral report presentation. Offered Every Semester.

TEC 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

TEC 497 WORKSHOP

3, 0/0

Offered occasionally.

TEC 499 INDEPENDENT STUDY

2-6, 0/0

Offered Every Semester.

English (ENG, HUM)

English (ENG)

ENG 130 BIBLICAL AND CLASSICAL LITERATURE

3, 3/0; GA23

Works selected from Biblical literature and from Latin and Greek literature before Constantine. Offered every semester.

ENG 131 MEDIEVAL AND RENAISSANCE LITERATURE

3, 3/0

An introduction to world literature of the medieval and renaissance periods. Offered annually.

ENG 147 INTRODUCTION TO DIVERSE LITERATURES

3, 3/0; DI23

Introductory survey of diverse literatures of the United States with an emphasis on literatures by marginalized communities including ethnic and racial minority writers, LGBTQ+ writers, women writers, and members of under-represented groups. Offered every fall.

ENG 151 INTRODUCTION TO POETRY

3, 3/0; AR23

Verbal and formal techniques of English and American poetry. Prosody, verse forms, conventions, genres, diction, and imagery. Social and historical contexts. Representative authors and periods. Offered every semester.

ENG 160 INTRODUCTION TO LITERATURE AND FILM

3, 3/0; HU23

Analysis of film as the creative and critical interpretation of fiction or drama; how such films respond to aesthetic, cultural, technological, political, and ideological influences, both in the source text and in the contemporary moment. Offered every semester.

ENG 170 INTRODUCTION TO CREATIVE WRITING

3, 3/0; AR23

Prerequisite: CWP 101 or CWP 102. An introduction to the craft of fiction, nonfiction, poetry and other forms of creative writing. Offered every semester.

ENG 171 PORTRAIT MAGAZINE EDITING AND PRODUCTION

1, 1/0

Creating, assembling, and editing the materials required for the production of Portrait Magazine, the Student-led Literary Arts Journal of Buffalo State. The course may be taken up to four times for credit. Offered every semester.

ENG 189 TOPIC COURSE

1-3, 0/0

A project in literary criticism, literary history, film studies, or a related field. Offered occasionally.

ENG 190 INTRODUCTION TO LITERATURE

3, 3/0; HU23

The basic types of responses to literature; the defining characteristics of poetry, fiction, and drama; as well as the skills of close reading of literary texts. Offered every semester.

ENG 200 FIELD EXPERIENCE IN SECONDARY ENGLISH EDUCATION

3, 3/0

Prerequisites: Standing in the English Education Major or Post Baccalaureate Certification Program. Introduction to the secondary school as an institution and to the teaching of English as a profession. Required observations of teaching English and other areas, 7-12. Limited experimentation with teaching secondary English. Offered every semester.

ENG 201 THE CRAFT OF WRITING

3, 3/0

Prerequisite: CWP 102. Demystifying the act of writing by studying, discussing, and practicing models of the composing process. Offered every semester.

ENG 205 HISTORY OF CINEMA I

3, 3/0; HU23

This course provides the student with an understanding of cinema history from 1890 to 1960. Students will examine trends in cinema's aesthetic forms, technical breakthroughs, innovators, cultural antecedents, and impact. Offered every semester.

ENG 206 HISTORY OF CINEMA II

3, 3/1; HU23

This course provides the student with an understanding of cinema history since 1960. Students will examine representative trends in cinema's aesthetic form, technical breakthroughs, key innovators, cultural antecedents and cultural impact. Offered every semester.

ENG 210 BRITISH LITERATURE TO 1700

3, 3/0

A study of selected topics, themes, and authors in British literature before 1700. Offered annually.

ENG 211 BRITISH LITERATURE 1700-1914

3, 3/0

A study of selected topics, themes, and authors in British literature from 1700 to 1900. Offered annually.

ENG 212 BRITISH LITERATURE SINCE 1914

3, 3/0

An overview of important movements in British literature from the late Victorian period through contemporary literature, such as Fabianism, Modernism, Marxism, Aestheticism, The Movement and the Angry Young Men, postmodernism, post-Empire writing, Black British writing, and women's and queer literature. Offered occasionally.

ENG 220 AMERICAN LITERATURE TO 1865

3, 3/0

Survey of the various genres of influential American writing—including biographies, captivity and slave narratives, essays, poems, short stories and criticism, as well as Gothic, epistolary, sentimental, and Romantic novels—produced between the late seventeenth century and the mid-nineteenth century. Offered every semester.

ENG 221 AMERICAN LITERATURE SINCE 1865

3, 3/0

A study of topics, themes, and authors in American literature after the Civil War. Offered annually.

ENG 230 COMPARATIVE LITERATURE

3, 3/0

Comparative analyses of the ways in which literary periods, genres, movements, and social forms are shaped by the languages and cultural contexts through which they come into being. Course may be repeated once for credit when content varies. Offered every semester.

ENG 231 WOMEN IN LITERATURE

3, 3/0; DI23, HU23

The images of women in literature as they reflect attitudes about women and their roles. Emphasis on authors and eras varies with instructors. Offered every semester.

ENG 240 AFRICAN AMERICAN LITERATURE TO 1940

3, 3/0; DI23, HU23

African American slave narratives, poetry, fiction, essays, and drama from the eighteenth century to 1940; the influence of spirituals, gospel, blues, jazz, sermons, and folktales on African American writing; the Harlem renaissance of the 1920s and 1930s; and the development of African American revolutionary thought. Offered fall only.

Equivalent Course: AAS 240

ENG 241 AFRICAN AMERICAN LITERATURE SINCE 1940

3, 3/0; DI23, HU23

Realism, naturalism, modernism, and postmodernism in African American literature; black revolutionary thought and artistry in the 1960s and 1970s; neo-slave narratives; African American poetry, fiction, essays, and drama from 1940 to the present; influence of spirituals, gospel, the blues, jazz, sermons, and folktales on contemporary African American writing. Offered spring only.

Equivalent Course: AAS 241

ENG 243 INTRODUCTION TO LATINX LITERATURE

3, 3/0; DI23, HU23

Introductory study of themes, ideas, and movements in Latinx literature from the mid-nineteenth century to the present. Offered annually.

ENG 245 WRITING ABOUT THE ARTS

3, 3/0

Prerequisite: CWP 102 and one arts Intellectual Foundations course. Practicum in writing about the arts. Teaches skills essential to developing a discerning critical eye and to communicating critical insights in various forms of writing about the arts. Includes participation in projects that highlight both traditional and contemporary subjects and approaches to arts criticism. Offered annually.

ENG 247 NATURE WRITING

3, 3/0

Prerequisite: CWP 102. Students develop an understanding of the nonfiction prose genre of nature writing and improve their ability to produce original works in the genre. Class focuses on reading and analyzing nature writing for its stylistic and thematic features and emphasizes specific writing skills. Explores the connection between the natural and human worlds and various attitudes toward nature as conveyed in examples of the genre. Offered alternate years.

ENG 250 LITERARY MOVEMENTS

3, 3/0

Prerequisites: Sophomore, junior, or senior standing. Study of a literary theme, genre, author, period, or theoretical approach. Offered every semester.

ENG 254 CULTURALLY DIVERSE AMERICAN LITERATURE IN MIDDLE AND HIGH SCHOOLS

3, 3/0; DI23

Prerequisite: CWP 102. Focus on diverse American literature taught in secondary English classrooms. Readings drawn from traditional and non-traditional literary texts and popular media representing a wide range of American voices and experiences. This course addresses the role of culturally diverse literature plays in American schools and its incorporation across content areas. Offered every semester.

ENG 255 THE SHORT STORY

3, 3/0; AR23

Various examples of influential short fiction produced around the world since the nineteenth century. Familiarizes students with various literary techniques involved in the craft of short fiction. Offered every semester.

ENG 260 CHILDREN'S LITERATURE

3, 3/0

Prerequisite: Sophomore, junior, or senior status. Types of children's literature, with attention to the principles of book selection and reading interests of children. Offered every semester.

Equivalent Course: ENG 362

ENG 266 WRITING THE PERSONAL ESSAY, MEMOIR, AND AUTOBIOGRAPHY

3, 3/0; AR23

Introduction to writing in personal forms—including the essay, memoir, and autobiography—and the use of such forms in diverse disciplinary contexts; students will compose personal essays, memoirs, autobiographies, and autoethnographies, as well as writing in digital forums such as blogs and other social media. Offered every fall.

ENG 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Permission of the instructor. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

ENG 300 WRITING FOR THE PROFESSIONS

3, 3/0

Prerequisite: CWP 102 or equivalent. Practice for students who wish to improve their competence in writing and editing for a variety of professions. Offered every semester.

ENG 301 ADVANCED COMPOSITION

3, 3/0

Prerequisites: CWP 102. Practice in writing academic papers. Writing assignments emphasize stylistic strategies, diction, disciplinary conventions, revision and research. Offered occasionally.

ENG 302 TECHNICAL WRITING

3, 3/0

Prerequisites: Enrollment in the TEW certificate program, or instructor permission. The study of writing for science, industry, and nonprofits. Offered fall only.

ENG 303 LITERATURE IN FILM

3, 3/1

The motion picture as a vehicle for literature. Analysis and comparison of verbal and pictorial forms. May be taken for credit more than once when content varies. Offered every semester.

ENG 304 FORMS OF FILM

3, 3/1

Breadth and depth of selected film forms. Emphasis on the film as art, medium of communication, and social document. May be taken for credit more than once when content varies. Offered every semester.

ENG 305 CREATIVE WRITING: NARRATIVE

3, 3/0

Prerequisite: CWP 102. The writing of narrative. May be taken for credit up to three times with permission of the instructor. Offered every semester.

ENG 306 CREATIVE WRITING: POETRY

3, 3/0

Prerequisites: CWP 102, or permission of instructor. The craft of writing poetry, blending theoretical and practical approaches. Explores a variety of established genres and experimental poetic forms, such as the sonnet, sestina, haiku, cynghanedd, concrete poetry, etc. Considers how such forms change across different cultures and eras. May be taken for credit up to three times with permission of the instructor.

ENG 307 TUTORING AND TEACHING WRITING

3, 3/0

Prerequisite: CWP 102. Writing-intensive course for undergraduate students who wish to develop better writing skills and gain a theoretical foundation and practical experience in Writing Center tutoring. Explores the role and the craft of the writing tutor. Offered annually.

ENG 308 PEER TUTORING PRACTICUM

1-3, 0/0

Prerequisites: CWP 102; minimum cumulative GPA of 2.5 in English courses. Students meet weekly with Writing Center director, conduct tutoring sessions, and gain practical experience as writing tutors in the Writing Center. Offered occasionally.

ENG 309 TEACHING AND EVALUATING WRITING

3, 3/0

Prerequisite: CWP 102. Methods for teaching and evaluating writing. Includes theories of composition and rhetoric, approaches to teaching composition, ways to respond to writing-in-progress and completed texts, methods of measuring growth, and means to evaluate writing performance. Offered every fall semester.

ENG 311 LANGUAGE, LITERACY AND CULTURE IN ENGLISH TEACHING

3, 3/0

Prerequisite: CWP 102. How we use language and multiliteracies. Theories of language use. History of language instruction; the right to one's own language; sociopolitical dimensions of language; the role of English instruction in social justice contexts; antiracist and antibias language instruction. Requires observations of teaching English and other areas, 7-12. Offered every semester.

ENG 313 MILTON

3, 3/0

Prerequisite: Upper-level status or one course in English. A study of Milton's oeuvre with emphasis on Paradise Lost. Offered alternate years.

ENG 315 SHAKESPEARE I

3, 3/0

Prerequisite: Upper-level status or one course in English or THA 316. Shakespeare's work to 1600: the sonnets, early tragedies, histories, and comedies. Offered alternate years.

ENG 317 SHAKESPEARE FOR FUTURE TEACHERS

3, 3/0

Prerequisite: Upper-level status or one course in English. Intensive study of the Shakespeare plays most often taught in high school English classes. Emphasis on strategies for teaching Shakespeare and on particular needs of high school teachers in multicultural settings. Offered spring only.

ENG 320 AUTOBIOGRAPHY AND MEMOIR

3, 3/0

Prerequisite: ENG 201 or permission of instructor. A study of the genres of autobiography and memoir with an emphasis on developing mastery in producing written products of the forms. Students read and discuss examples of both autobiography and memoir, write informal and processed examples of the genres, and learn about the process of writing in the genres for publication. Offered alternate years.

ENG 322 REPRESENTATIVE WRITERS

3, 3/0

Prerequisite: Upper-level status or one course in English. Selected works of a single writer or group of related writers. Supplemental readings of other writers of the period. This course may be taken more than once for credit when content varies. Offered annually.

ENG 325 CREATIVE NON-FICTION

3, 3/0

Prerequisite: ENG 201 or permission of instructor. Reading and writing creative nonfiction, an essay form that consciously uses the stylistic features of fiction and poetry. Offered alternate years.

ENG 327 EDITING AND PUBLISHING ELM LEAVES JOURNAL

3, 3/0

Prerequisite: CWP 102. The applied and historical study of all stages literary publishing since the founding of Poetry: A Magazine of Verse in 1912 including an understanding of both the function of the magazine as a literary force and the interaction of design and

text. Practical application via lab hours devoted to editing, designing, and distributing ELJ (Elm Leaves Journal), SUNY-Buffalo State's literary magazine. Offered annually.

ENG 329 DIGITAL LITERACIES IN THE 7-12 ENGLISH CLASSROOM

3, 3/0

Prerequisites: CWP 102 and ENG 200. Approaches for integrating technology into the English language arts. Emphasis placed on 21st-century literacies, multimodal composing, and reading and writing instruction from a new literacies perspective. Additional focus on the ELA as student content creation and distribution through digital platforms for composing, publishing and sharing student work. Offered every spring.

ENG 337 MODERN EUROPEAN LITERATURE

3, 3/0

Prerequisite: Upper-level status or one course in English. Selected themes, ideas, and movements of European literature from the Renaissance to postmodernity. Offered occasionally.

ENG 340 PLAYWRITING

3, 3/0

Prerequisite: THA 316 or TFA 310 or ENG 305 or permission of instructor. Students will use research, script analysis and writing skills to develop and refine a script for stage or screen. Offered occasionally.

Equivalent Course: THA 340

ENG 345 WORLD LITERATURE AFTER 1945

3, 3/0

Prerequisite: Upper-level status or one course in English. Post-World War II literature around the globe. Poetry and fiction along with the cultural background of at least two continents. Offered annually.

ENG 353 AMERICAN INDIAN LITERATURE

3, 3/0; DI23, GA23

Prerequisite: CWP 102. Selected aspects of traditional sacred and secular tales and contemporary American Indian literature in its cultural, historical and aesthetic contexts. Offered every semester.

ENG 354 ETHNIC AMERICAN MINORITY LITERATURES

3, 3/0; DI23

Prerequisite: CWP 102. The background, development, and contemporary contribution of ethnic American minority literature (folklore, poetry, short story, novel, biography, and play) and individual authors. Its literary characteristics, its contribution to the field of American literature, and its place in today's society. Offered every semester.

ENG 356 SPECULATIVE FICTION

3, 3/0; DI23

Prerequisite: CWP 102. History, aesthetics, and social significance of Speculative Fiction by diverse American authors; multicultural writers and movements of the genre; literary themes and techniques in individual works. Offered every fall.

ENG 361 CONTEMPORARY LITERATURE

3, 3/0

Prerequisite: Upper-level status or one course in English. Reading, discussion, and analysis of literature written in the last 25 years. Literary features and literary theories. Offered occasionally.

ENG 362 CHILDREN'S LITERATURE

3, 3/0

Prerequisite: CWP 102 or equivalent. An introduction to children's literature both fiction and nonfiction, from classic to contemporary. This course examines principles and concerns of literary quality, critical theory, and the historical development of children's literature. Attention is also given to the role of technology and multimodalities in children's literature. Offered every semester.

Equivalent Course: ENG 260

ENG 370 FOUNDATIONS OF LANGUAGE

3, 3/0

Prerequisite: CWP 102. The structure of language with emphasis on English speech and writing; language families and their relationships; language change; significance of regional and social dialects. Offered every semester.

ENG 380 THE HISTORY OF THE PRINTED BOOK

3, 3/0

Prerequisites: CWP 102 or the equivalent. Analysis of the printed book as a physical, historical, social, aesthetic and cultural object. Course requires original bibliographical research. Offered alternate years.

ENG 385 GENDER AND SEXUALITY IN LITERATURE

3, 3/0; DI23

Prerequisite: Upper-level status or one course in English. Elements of gender and sexuality in British, American, or world literature: themes, historical periods, philosophies, theories, and movements. May be taken for credit up to three times when content varies. Offered annually.

ENG 389 TOPIC COURSE

1-3, 3/0

Variable credit (1-3 hours). Advanced study of a topic in English literature, English Education, or creative or technical writing. Offered occasionally.

ENG 390 LITERARY CRITICISM AND THEORY

3, 3/0; RE23

Prerequisites: ENG 190 & ENG 250; major in English, English Education, or Writing; minor in Literary Studies or Film Studies; or approval of the instructor. The major movements, critics, and ideas that comprise modern literary theory, such as formalism, psychoanalytical theory, feminism, ethnic studies, structuralist and poststructuralist studies, Marxism, new historicism. Offered annually.

ENG 402 ADVANCED CREATIVE WRITING: NARRATIVE

3, 3/0

Prerequisites: CWP 102; ENG 305; or permission of the instructor. A study of prose narrative and the craft of its writing. Offered alternate years.

ENG 403 ADVANCED CREATIVE WRITING: POETRY

3, 3/0

Prerequisite: CWP 102; ENG 306; or permission of instructor. Creative workshop for students experienced and/or talented in the writing of poetry. Offered alternate years.

ENG 404 STUDIES IN CINEMA

3, 3/0

Prerequisites: CWP 102 and ENG 205 or permission of instructor. Advanced study of key figures, institutions, nations or regions, genres, eras, technologies, motifs, techniques, or other aspects of film. Application of film theory and student research to the critical analysis of cinema. Offered alternate years.

ENG 409 WRITING GRANTS AND PROPOSALS

3, 3/0

Prerequisite: Enrollment in the TEW certificate program, or instructor permission. The study of writing grants and proposals for science, industry, and the nonprofit sector. Offered spring semester only.

ENG 410 COMPOSITION AND RHETORICAL THEORY

3, 3/0; IN23, RE23

Prerequisite: ENG 201 or instructor permission. Contemporary composition and rhetorical theory with an emphasis of the theory of discourse communities. Students develop skills in producing critical, theoretical, creative, and rhetorical discourse. Offered fall only.

ENG 416 EIGHTEENTH-CENTURY ENGLISH LITERATURE

3, 3/0

Prerequisite: Upper-level status or one course in English. Literature of eighteenth-century Britain. Offered alternate years.

ENG 442 THE AMERICAN NOVEL TO 1900

3, 3/0

Prerequisite: Upper-level status or one course in English. Representative American novels to 1900. Includes major modes of American fiction and the relationships among them. Historical, social, and artistic developments of the American novel to 1900. Offered alternate years.

ENG 447 SELECTED TOPICS IN DIVERSE LITERATURE

3, 3/0

Advanced study of a selected period, writer(s), or movement in diverse literature. Offered every spring.

ENG 450 TOPICS IN THE STUDY OF POETRY

3, 3/0

Prerequisite: Upper-level status or one course in English. A particular aspect of poetry: theme, motif, philosophy, concept, or literary movement in English, American, or world literature. May be taken for credit more than once when content varies. Offered occasionally.

ENG 451 TOPICS IN THE STUDY OF FICTION

3, 3/0

Prerequisite: Upper-level status or one course in English. Analysis of selected aspects of the novel, novella, or short story: theme, motif, concept, or movement in English, American, or world literature. May be taken more than once when content varies. Offered occasionally.

ENG 452 TOPICS IN THE STUDY OF DRAMA

3, 3/0

Prerequisite: Upper-level status or one course in English. A particular aspect of drama or theater history: a theme, period, genre, philosophy, concept, or movement in British, American, or world literature. May be taken for credit more than once when content varies. Offered occasionally.

ENG 461 YOUNG-ADULT LITERATURE

3, 3/0

Prerequisite: Upper-level status or one course in English. Literature appropriate to students in grades 7-12. Offered every semester.

ENG 462 SEMINAR IN STUDENT TEACHING FOR ENGLISH EDUCATION

3, 3/0

Prerequisite: Permission of instructor. Corequisite: ENG 464/465. Planning, instruction, assessment, reflective practice and classroom management strategies for the secondary English Education teacher. Offered every semester.

Equivalent Course: ENG 466

ENG 463 METHODS, MATERIALS, AND PROFESSIONAL DEVELOPMENT FOR TEACHERS OF ENGLISH

6, 6/0; IN23, RE23

Prerequisites: SPF 303, ENG 200; minimum cumulative GPA of 2.75 in major. Methods and materials necessary to become an effective teacher of English. Includes secondary school curriculum, New York State standards for the language arts, planning, assessment, and classroom management. Additional emphasis on professional development with on-site observations, practice teaching sessions, and interactions with public-school teachers and personnel. Offered every semester.

ENG 464 STUDENT TEACHING IN MIDDLE SCHOOL/JUNIOR HIGH SCHOOL ENGLISH

6, 0/0

Corequisite: ENG 466. Prerequisites: ENG 200, ENG 309, ENG 463, SPF 303, SPF 403, and EDU 416; minimum cumulative GPA of 2.75 in English; and professional education courses. Full-time practice teaching, five days a week for seven weeks in a middle school/junior high school situation. College supervision biweekly. Elementary extension students teach one situation. Required for upper-division students in secondary English and elementary education extension students. Offered every semester.

ENG 465 STUDENT TEACHING IN SENIOR HIGH SCHOOL ENGLISH

6, 0/0

Prerequisites: ENG 200, ENG 309, ENG 463, SPF 303, SPF 403, and EDU 416; minimum cumulative GPA of 2.75 in English; and professional education courses. Full-time practice teaching, five days a week for seven weeks in a senior high school situation. College supervision biweekly. Required for upper-division students in secondary English. Offered every semester.

ENG 466 SEMINAR IN STUDENT TEACHING FOR ENGLISH EDUCATION

3, 3/0

Prerequisite: Instructor Permission. Corequisite: ENG 464. Planning, instruction, assessment, reflective practice and classroom management strategies for the secondary English Education teacher. Offered every semester.

Equivalent Course: ENG 462

ENG 472 ENGLISH GRAMMARS

3, 3/0

Theories and methods of grammatical study. Offered occasionally.

ENG 488 INTERNSHIP

1-15, 0/0

Prerequisites: Minimum cumulative GPA of 2.0; upper-division status. Field experiences that supplement departmental academic offerings; geared to students' interests. Faculty intern supervisor and department chair permission necessary. Offered occasionally.

ENG 490 SENIOR SEMINAR IN LITERATURE

3, 0/0; IN23

Prerequisites: ENG 390, major in English, English Education, or Writing; minor in Literary Studies or Film Studies; or approval of the instructor. Seminar featuring disciplinary research, applied work, and possible careers; focus on advanced skills (such as abstract composition, article publication, conference publication) associated within and outside the discipline. Offered every spring.

ENG 491 SENIOR SEMINAR FOR WRITING MAJORS

3, 3/0

Prerequisites: ENG 201 and three hours of literature/writing classes. Senior standing. Writing major. Advanced study of writing, publishing, and literary markets with particular attention to improving and reflecting on literary craft as a dynamic process. Each student will develop a major body of work as a demonstration of individual writing processes, identified points of personal progress, and potential contributions to the literary market. Offered spring semester only.

ENG 495 SPECIAL PROJECT

3, 0/0

Offered occasionally.

ENG 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisites: ENG 390. Substantial research project in literary criticism, literary history, textual studies, or a related field. Offered occasionally.

Humanities (HUM)

HUM 100 INTRODUCTION TO HUMANITIES

3, 0/0; HU23

An introduction to the disciplines of the humanities, with emphasis on how human beings have sought to give meaning to their lives through philosophical and creative expression. The relevance of humanistic thinking to ongoing contemporary issues. Offered every semester.

HUM 189 TOPICS

1, 0/0

A project connecting three of the following areas: literature, language, rhetoric, history of the visual and performing arts, history, and philosophy. Offered occasionally.

HUM 200 INTRODUCTION TO RHETORIC

3, 3/0; HU23

Rhetorical theory and practice from Aristotle to the present. Techniques of rhetorical analysis, critical thinking and oral presentation. Offered every semester.

HUM 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

HUM 389 TOPIC COURSE

3, 0/0

An advanced project examining primary and secondary texts from three of the following areas: literature, language, rhetoric, history of the visual and performing arts, history, and philosophy. Offered occasionally.

HUM 495 SPECIAL PROJECT
3, 0/0

HUM 499 INDEPENDENT STUDY
3, 0/0

Exceptional Education (EXE)

EXE 100 NATURE AND NEEDS OF INDIVIDUALS WITH SPECIAL NEEDS
3, 3/0; DI23

Understanding the nature and needs of individuals with disabilities, including the implications for schools and society. Required for exceptional education majors; min. grade of C required for education majors. Offered every semester.

EXE 221 FOUNDATIONS OF EFFECTIVE ASSESSMENT AND INSTRUCTION IN SPECIAL EDUCATION
3, 3/0

Prerequisites: EXE 100 (minimum grade of C or higher); SCE major status; 2.6 cumulative GPA. Foundation in effective assessment and instructional practices for all students. Basic understanding of different types of assessment and how to interpret assessment information to form goals and objectives related to individualized instruction. Essential principles related to effective instruction for students with disabilities. Offered every semester.

EXE 245 COMMUNITY SERVICE WITH INDIVIDUALS WITH SPECIAL NEEDS
1-9, 0/1

Service in community agencies with individuals who are exceptional. May be taken for 1, 2, or 3 credit hours. Offered in every semester.

EXE 295 EXCEPTIONAL EDUCATION UNDERGRADUATE PROJECT
1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

EXE 311 WRITING IEPs ACROSS THE P-12 GRADE SPAN
3, 3/0

Prerequisite: EXE 100 (minimum grade of C); SCE major status; minimum 2.6 cumulative GPA. Create and implement effective and legally compliant Individualized Education Plans (IEPs) which provide services and supports to learners with disabilities, ages 3-21. Key concepts include relevant legislation and NYS mandates, best practices in IEP development, and the importance of transition planning at all ages. Offered every semester.

EXE 321 ADAPTING AND INTENSIFYING LITERACY INSTRUCTION FOR STUDENTS WITH DISABILITIES
3, 3/0

Corequisites: EDU 322; EXE/EDU 323. Prerequisites: EXE 221 (minimum grade of C or higher); EDU 211 (minimum grade of C or higher); SCE major status; 2.6 overall GPA. Developing teacher candidates' knowledge and skills for effectively serving P-12 students with and at risk for disabilities in the area of literacy. Includes instructional design and delivery methods, learning strategies, interventions, and resources for teaching students with disabilities in Grades P-12 who struggle to develop proficiency in literacy. Offered every semester.

EXE 323 FIELD PLACEMENT IN LITERACY METHODS FOR CHILDREN WITH AND WITHOUT DISABILITIES
3, 0/0

Corequisites: EXE 321 and EDU 322. Prerequisites: EXE 221 (minimum grade of C or higher); EDU 211 (minimum grade of C or higher); SCE major status; 2.6 overall GPA. Field experience course in literacy methods emphasizing assessment and instructional design and delivery. Includes effective practices for students with typical development, at-risk and with disabilities. Offered every semester. Equivalent Course: EDU 323

EXE 324 SIGN LANGUAGE FOR STUDENTS WITH AUTISM AND DEVELOPMENTAL DISABILITIES
3, 3/0

Overview of the nature and characteristics of Autism Spectrum Disorder (ASD) and the impact ASD has on communication. Evidence-based assessments/interventions for communication/behavioral aspects of ASD. Communication skills for individuals with ASD and/or other developmental disabilities/delays using functional sign language. Offered spring only.

EXE 362 BEHAVIOR AND CLASSROOM MANAGEMENT

3, 3/0

Prerequisites: EXE 100 (minimum grade of C or higher for EXE majors); Exceptional Education Major or Childhood Education Major Status; 2.6 overall GPA for EXE majors. Understanding the nature of behavior. Developing awareness of tools and strategies for managing the classroom environment and instruction to minimize challenging behavior. Techniques for handling challenging student behaviors. Offered every semester.

EXE 364 EDUCATING STUDENTS WITH SEVERE DISABILITIES

3, 3/0

Prerequisites: EXE 221 (minimum grade of C); SCE major status, 2.6 overall GPA. Characteristics and needs of individuals with severe disabilities and those of their families. Methods to teach and support individuals and families. Offered every fall semester.

EXE 371 FOUNDATIONS OF TEACHING CHILDREN WITH DISABILITIES

3, 3/0

Prerequisite: EXE 100 with grade of C or higher, Elementary Education Major Status. Adaptations, procedures, and management systems necessary for effective instruction of children with disabilities in general education settings. Offered every semester.

EXE 372 FOUNDATIONS OF TEACHING ADOLESCENTS WITH DISABILITIES

3, 3/0

Prerequisite: EXE 100. Adaptations and instructional procedures necessary for effective instruction of adolescents with disabilities. Recommended for secondary education majors. Offered spring only.

EXE 373 FOUNDATIONS OF TEACHING MIDDLE SCHOOL STUDENTS WITH DISABILITIES

3, 3/0

Prerequisite: EXE 100. Focus on instructional procedures necessary for effective instruction of middle school students with disabilities and those at risk. Adaptations and management strategies for meeting the needs of middle school students in a variety of academic and social settings. Offered occasionally.

EXE 389 TOPICS COURSE

1-3, 0/0

Offered occasionally.

EXE 390 STRATEGIES AND TECHNOLOGY TO ACCESS AND ADAPT CONTENT AREA INSTRUCTION

3, 3/0

Prerequisites: EXE 221 (minimum grade of C); SCE major status; 2.6 cumulative GPA. Learning to design, adapt, and deliver instruction so students with disabilities and other at-risk learners can access content area curriculum. Strategy instruction, content enhancement routines, instructional adaptations, and use of assistive and instructional technology. Required 10-hour observation-based field experience in a special class or agency setting serving individuals with low incidence disabilities. Offered every spring.

EXE 420 PRACTICUM IN SPECIAL EDUCATION

6, 3/0

Corequisite: EDU 404. Prerequisites: SCE major status; minimum 2.6 cumulative GPA; minimum grade of C in all major courses; all program requirements other than student teaching completed; instructor permission. Undergraduate student teaching experience with individuals needing special education services in grades pre-k through 12, completed in public, private, or charter school classrooms, private agency classrooms, or classrooms in residential settings. Required for undergraduate students seeking certification as a teacher of special education. Offered every semester.

EXE 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

EXE 499 INDEPENDENT STUDY

3-12, 3/0

Offered occasionally.

Fashion & Textile Technology (FTT)

FTT 100 CONSTRUCTION FUNDAMENTALS

1, 1/1

Fundamental construction techniques used in the apparel industry; proficiency in basic construction details using both domestic and industrial sewing equipment. Offered occasionally.

FTT 109 GARMENT CONSTRUCTION I

3, 2/3

Principles and techniques of garment construction, focusing on cutting and sewing techniques; how to operate and maintain industrial sewing machines and other essential tools and equipment in garment construction; fabric and notion selection, cutting methods, seam finishes, and pressing techniques; critique and assessment of sewn garments. Offered every semester.

FTT 110 FASHION AND CREATIVITY

3, 3/0

Introduction to the fashion industry, offering a comprehensive overview; exploration of design principles, elements, and fashion terminology; analysis of key areas in fashion design, the creative process, design thinking, and product creation in the fashion business; and evaluation of the diverse landscape of fashion careers. Offered every semester.

FTT 150 FASHION BRANDS ESSENTIALS

3, 3/0

Focuses on macro environmental factors surrounding the fashion business and fashion consumers. Analysis on apparel statistics and market data to develop insight into business trends and consumer behavior in the fashion industry. Emphasis on fashion merchandising principles and ethical and sustainable business practices in the fashion industry. Offered every semester.

FTT 189 TOPIC COURSE

1-3, 0/0

Current topics in Fashion and Textile Technology, Lower level. Offered occasionally.

FTT 200 INTRODUCTION TO HAND KNITTING

3, 2/2

Gain experience in beginning hand-knit design. Emphasis on the basic principles of hand knitting, structure and types of hand stitches, traditional and ethnic knit designs, and development of original hand-knit designs. Offered occasionally.

FTT 206 SURVEY OF FASHION TEXTILES

3, 3/0

Basic introduction to the production, use, and selection of textiles and textile products; covers fibers, yarns, fabric production, dyeing, printing, finishing, performance characteristics, care, and textile-specific legislation; addresses sustainability and environmental-related issues related to textiles and textile production. Offered every semester.

FTT 208 INTRODUCTION TO FASHION TECHNOLOGIES

3, 2/2

Introduction to and multi-disciplinary hands-on experience with a variety of software programs used in the fashion industry. Offered every semester.

FTT 224 TECHNICAL APPAREL DESIGN I

3, 2/3

Prerequisites: FTT 109. Introduction to garment patternmaking and draping; fundamental principles of patternmaking, including the creation of slopers, sloper manipulation, and pattern drafting, as well as basic draping techniques; skills necessary to create custom-fit garment patterns; critiques and fit evaluation; hands-on practice and projects. Offered every semester.

FTT 250 FASHION BUYING AND MERCHANDISING PRINCIPLES

3, 3/0

Prerequisite: FTT 150. Mathematical factors involved in profitable merchandising; concepts, practices, and procedures, as well as the calculations and interpretations of figures related to operations of stores. Offered every semester.

FTT 252 FASHION AESTHETICS AND STYLING

3, 2/2

Exploration of fashion styling principles and techniques; evaluation of diverse fashion aesthetics; embracing ethical fashion styling practices; development of fashion narratives; and creation of professional fashion photoshoots. Offered every fall.

FTT 300 KNIT TECHNOLOGY I

3, 2/2

Prerequisite: FTT 206 or permission of instructor. Basic principles of computerized machine weft knitting; understanding the relationships of yarn, color, stitch types, and gauge; charting and producing stitch designs by machine. Offered occasionally.

FTT 303 FASHION ILLUSTRATION I

3, 2/2

Prerequisite: FTT 110. Foundation skills in fashion illustration; sketching the fashion figure and drawing the drapery of garments as they fall on the human figure; diversity in fashion figure types; development of personalized illustration style; creation of design collections using original concepts and themes. Offered every semester.

FTT 304 TEXTILE SURFACE DESIGN I

3, 2/2

Prerequisites: FTT 110. Creation of original motifs for prints that are targeted for the fashion products markets; professional methods for transforming original motifs into commercial digital surface patterns and/or graphic prints (using Adobe Photoshop & Illustrator); color reduction and cleaning; basic repeat development; colorway development based on manufacturer requirements, awareness of current color and graphic trends, marketability, and industry standards. Offered every semester.

FTT 306 TEXTILE EVALUATION

3, 2/2

Prerequisites: FTT 110, FTT 206. Advanced textiles course focused on fabric performance evaluation and quality; understanding of standard test methods commonly used in the textile and apparel industry; use of equipment and techniques to assess selected physical and aesthetic properties of textile products. Offered every semester.

FTT 308 FASHION ILLUSTRATION II

3, 2/2

Prerequisites: FTT 303. The dynamic convergence of technology and fashion in digital fashion design; how to use industry-standard software to create fashion illustration, with a focus on technical flats, textile rendering, and digital presentation; the digital proficiency required to translate design visions into fashion illustration; and digital fashion design portfolio development. Offered every semester.

FTT 310 FASHION APPAREL PRODUCTION

3, 3/0

Prerequisites: FTT 206. Understanding product quality in fashion; the process of producing high-quality apparel products; evaluation of industry standards and practices; hands-on experience in fabric performance and sewn product testing and evaluation; the process of producing apparel products from conceptualization to final delivery; application of sustainable and ethical practices; costing and pricing strategies. Offered every semester.

FTT 324 GARMENT CONSTRUCTION II

3, 2/3

Prerequisite: FTT 109, 224. Advanced techniques and skills in garment construction for a variety of woven and knit fabrics; advanced cutting and sewing techniques; creation and construction of garment incorporating different fabric textures and weights; applying design elements to their garments, as well as advanced techniques for finishing and embellishing their garments. Offered every semester.

FTT 326 TRADITIONAL/COMPUTER FLAT PATTERN

3, 2/3

Prerequisite: FTT 224 or instructor permission. Introduction to traditional and computer flat pattern method of pattern making; emphasis placed on design and completion of selected items of apparel developed from a basic sloper. Offered every semester.

FTT 327 2D/3D COMPUTER PATTERNMAKING

3, 2/3

Prerequisites: FTT 326 or instructor permission. Apparel patterns are modified and graded in 2D and simulated in 3D through the use of an industrial multidimensional software; hand pattern drafting techniques are adapted to the computer by creating a virtual custom dress from a body scan and applying pattern modifications in order to create a variety of intermediate to advanced garment style patterns that are simulated in 3D on a virtual avatar. Offered every semester.

FTT 328 TECHNICAL APPAREL DESIGN II

3, 2/3

Prerequisites: FTT 224. Clothing design using the draping technique is a pattern-making method that is visual and aesthetic. Emphasis is on the creation of basic garment patterns using draping method. Experience with the manipulation of a variety of two-dimensional fabrics to cover three-dimensional forms using a variety of fabrics to achieve individualized designs. Offered every semester.

FTT 329 GARMENT CONSTRUCTION III

3, 2/3

Prerequisites: FTT 324. Mastering techniques and skills in garment construction incorporating various specialty fabrics; sewing tools and equipment for specialty fabrics; advanced techniques for achieving impeccable finishes and exquisite embellishments while applying sophisticated design elements to their garments; and construction of complex garment design and professional presentation. Offered occasionally.

FTT 348 FASHION, SOCIETY, AND HISTORY

3, 3/0

Prerequisite: FTT 110. The history of fashion and its relationship with society and culture from a social justice framework; social and economic factors shaping fashion in different cultural contexts; the intersection of fashion with politics, gender, race, and other dimensions; the experiences and roles of marginalized, indigenous, and diasporic communities in fashion. Offered every semester.

FTT 349 HISTORY OF TEXTILES

3, 3/0; GA23

Prerequisites: FTT 206 and junior standing or permission of instructor. Political, cultural, and economic effects of textile production throughout the world. Use of fibers, yarns, fabric construction, color application, and finishes in relation to development of technology, labor movements, and social issues during historic periods on a global basis. Offered alternate years.

FTT 350 FASHION ANALYTICS AND DATA INSIGHTS

3, 3/0

Prerequisites: FTT 150. Hands-on experience with spreadsheet package used in the fashion industry for tasks such as inventory management, pricing, assortment planning, etc. Strategies for next season/year formulated based on analysis and evaluation of data. Preparation of profit/loss statements and presentation of financial report using Power Point. Offered every semester.

FTT 355 RESEARCH IN FASHION MERCHANDISING

3, 3/0

Prerequisite: FTT 150. Introduction to merchandising research; exploration of various research techniques; characteristics of qualitative and quantitative studies. Offered every semester.

FTT 358 FASHION TREND FORECASTING

3, 3/0

Prerequisite: FTT 110. Study of designers' work; consumer segmentation and adoption process; analysis of current trends in apparel in order to forecast for specific markets; story board presentation. Hands-on experience with off-the-shelf software programs used in fashion industry for concept/trend board development and forecasting presentation. Offered every fall & spring semester.

FTT 359 FASHION RETAIL ENVIRONMENT DESIGN

3, 2/2

Prerequisites: FTT 150. Designing fashion retail spaces in physical and digital environments to strengthen a brand's image and engage customers; visual merchandising design principles, elements, and composition; off-the-shelf technology for physical store design; merchandise presentation in online and mobile retail platforms; virtual retail space design; and virtual reality and augmented reality technology. Offered every semester.

FTT 365 FASHION DIGITAL RETAILING

3, 3/0

Prerequisites: FTT150. Designing fashion retail spaces in physical and digital environments to strengthen a brand's image and engage customers; visual merchandising design principles, elements, and composition; off-the-shelf technology for physical store design; merchandise presentation in online and mobile retail platforms; virtual retail space design; and virtual reality and augmented reality technology. Offered every semester.

FTT 389 TOPICS COURSE

1-3, 1/0

Current topics in Fashion and Textile Technology, Upper level. Offered occasionally.

FTT 410 ADVANCED PRODUCT DEVELOPMENT

3, 3/0

Prerequisite: Prerequisite: FTT 306, FTT 310, or permission of instructor. Advanced apparel production; principles and practices of sourcing raw materials and the costing of finished garments; types of production systems and the sequence of construction operations used to produce selected items of apparel. Offered spring only.

FTT 412 CAD: APPAREL AND TEXTILE DESIGN FOR INDUSTRY

3, 2/2

Prerequisite: FTT 206, FTT 208, or permission of instructor. Advanced techniques for off-the-shelf design software; development of basic understanding and design skills on an industrial print pattern design system; market research relative to textile/apparel coordinate product development; advanced textile/apparel coordinate product development; advanced apparel/textile design portfolio development for professional product presentation. Offered fall only.

FTT 413 CAD: WEAVE FOR INDUSTRY

3, 2/2

Prerequisite: FTT 304. Transition of designing woven designs on paper to industrial design software; develop colorways for repeat designs on 8-24 harness looms; designs are applied to end products for merchandising collections targeting specific markets; advanced portfolio-quality presentations. Offered spring only.

FTT 450 GLOBAL FASHION SYSTEMS

3, 3/0; IN23, RE23

Prerequisites: FTT 310. Integration of tracks in fashion textile technology. Overview of global issues facing the textile and apparel industry. Differing methods of organization and their inherent structural characteristics; national and international scope of the industry related to textiles, merchandising, and apparel manufacturing companies. Discussion of contemporary issues in American textile and apparel industry, including governmental controls, global trade policies, and labor issues. Offered every semester.

FTT 451 SENIOR PROJECT

3, 2/2

Prerequisites: FTT 308, FTT 324, FTT 326 and instructor permission. Fashion students must have completed: 1) up to and including all FTT 300 level core courses, and 2) all their 300 level required courses for their respective areas of concentration-apparel design and product development. Offered spring only.

FTT 452 FASHION SHOW PRODUCTION

3, 2/2

Prerequisite: FTT 110. Planning and production of a fashion-promotion event. Utilization of fashion skills to participate in individual and group activities leading to the presentation of a major fashion show. Offered spring only.

FTT 455 ISSUES IN MERCHANDISING AND FASHION RETAILING

3, 3/0

Prerequisites: FTT 150. Theory, principles and practice of apparel merchandising to both the brick and mortar and digital platform in the retail sector; business models; retailing structures; retailing strategies; responsibilities at management level; current trends; case-study analysis. Offered every semester.

FTT 461 FASHION PORTFOLIO AND PERSONAL BRANDING

3, 3/0

Prerequisites: FTT 3358. Mastery of fashion portfolio development and personal branding; practical experience in crafting portfolios that align with career goals; utilization of resources and technology for effective personal branding; and development of key communication skills for successful portfolio presentations, effective interviews, and strategic personal branding initiatives. Offered every semester.

FTT 475 FASHION MANAGEMENT SEMINAR

3, 3/0

Prerequisites: FTT 350, FTT 359, FTT 365. Focus on technological advancements; examination of their impact on the contemporary fashion business and consumer behavior; study of fashion management practices within the environment, social, governance (ESG) principles; in-depth analysis of contemporary fashion management issues; utilization of case studies and content analysis; and culmination in a comprehensive capstone project. Offered every semester.

FTT 483 BSC LED STUDY AWAY PROGRAM

1-15, 0/0

Acceptance into the program required.

FTT 488 INTERNSHIP/FIELD EXPERIENCE

1-6, 0/0

Prerequisites: Upper-division status and permission of instructor. Provides an opportunity to integrate academic knowledge in guided and supervised field experiences (experiential learning) with institutions, businesses and educational organizations, social and/or government agencies in area of interest to students as part of their degree program. Approval for experiential learning situations must be obtained from either the student's adviser or the department chair within which the student is a major, the supervising faculty member, and the chair of the department within which the credit will be given. Internship includes structured, supervised field participation, meetings with instructor for response to experiences, and written or other assignments. Students must have at least a 2.5 GPA and background within the area of interest to be considered for this experience. May be taken for a maximum of 6 credits. Offered every semester.

FTT 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

FTT 497 WORKSHOP

1-3, 0/0

Offered occasionally.

FTT 499 INDEPENDENT STUDY

3-12, 0/0

Offered occasionally.

Geosciences (ENS, GEG, GES, SCI))

Environmental Science (ENS)

ENS 100 URBAN ENVIRONMENTAL SCIENCE

3, 3/0

Survey of environmental science exploring the consequences to Buffalo from environmental and technological changes over the past century. Strong interdisciplinary focus with emphasis on the connections between our urban environment and human health. Topics include air and water quality, environmental stresses in the urban ecosystem, and environmental exposure to urban pollution and human health.

ENS 300 ENVIRONMENTAL CASE STUDIES

3, 3/0

Prerequisites: Completion of IF natural science requirement and upper division standing. Examines environmental literature and case studies on historically important and current environmental issues. Distinctions between facts, opinions and value judgments to evaluate and judge real situations. Global in scope; social contexts and national and global environmental policies. Offered alternate years.

Equivalent Course: ENS 410

ENS 410 SEMINAR IN ENVIRONMENTAL STUDIES

3, 0/0

Equivalent Course: ENS 300

Geography (GEG)

GEG 101 WORLD NATURAL ENVIRONMENTS

3, 3/0; NS23

Nature of geography; earth-sun relationships; maps and map interpretation; and classification, distribution, and origins of the major elements of the natural environment: weather, climates, soils, natural vegetation, landforms, and developmental processes. Offered every semester.

GEG 102 HUMAN GEOGRAPHY

3, 3/0; SS23

Introduction to cultural geography through the application of five themes: religion, diffusion, ecology, interaction, and landscape. The distribution of value systems, ethnicity, language, religion, and population as indices of human variety. Cultural impacts of globalization. Offered every semester.

GEG 103 INTRODUCTION TO ENVIRONMENTAL SUSTAINABILITY

3, 3/0; NS23

Introduction to the study of sustainability and human-environment interactions. Applies the principles of sustainability to current environmental and social problems such as climate change, biodiversity loss, energy and resource use, waste management, food security, and environmental justice. Offered at least once per year.

GEG 120 CAVERN STUDIES

1, 1/0

The development and unique environment of solution caves. Students will explore caves while on a weekend field trip, studying cave development and the formation of depositional features. Other topics include cave climatology, biology, chemistry, and the application of survey/mapping techniques. Offered occasionally.

GEG 206 GEOGRAPHY OF NEW YORK STATE

3, 3/0

Landforms, regions, climates, and natural resources; distribution of population; location and functions of cities; development of transportation; utilization and conservation of soil, mineral, forest, wildlife, and water resources; industrial development. Offered occasionally.

GEG 241 METEOROLOGY

3, 3/0; NS23

An introduction to weather, including the makeup of the atmosphere, seasonality, heat and radiation balance, temperature, humidity, and precipitation, atmospheric motion, atmospheric pressure and wind, air masses and fronts, severe weather, meteorological instrumentation, local weather, climate controls, and synoptic forecasting. Includes laboratory modules. Emphasis on the relationship between weather systems, technology, and humans. Offered at least once a year.

Equivalent Course: GES 241

GEG 295 RESEARCH EXPERIENCE IN GEOGRAPHY

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

GEG 300 WORLD REGIONAL GEOGRAPHY

3, 3/0

National and state geography standards; concept of region; map essentials; physical, cultural, economic, and political geography fundamentals within selected regions. Offered occasionally.

GEG 305 PRINCIPLES OF ECONOMIC GEOGRAPHY

3, 3/0

Prerequisite: One Social Science course. Introduction to the theoretical study of economic geography; location theory; theoretical spatial distribution of economic activities, including agriculture, manufacturing, urban land use, services, and transportation. Offered occasionally.

GEG 307 CONSERVATION AND ENVIRONMENTAL MANAGEMENT

3, 3/0

Prerequisites: One natural science course. Globalization, recent technological advancement, and effects on resource conservation and environmental management in the face of increased pressure from society. Current resources, globalization of environmental issues and pollution, new technologies and economic impacts. Offered occasionally.

GEG 309 URBAN GEOGRAPHY

3, 3/0; DI23

Prerequisite: One social science course. Internal spatial structure of American metropolitan areas and their relationships. Spatial arrangements of land uses; ethnics, racial and economic composition of the population; dynamics of population growth and change; influence of minorities on cities and suburbs; geographic consequences of poverty and segregation on growth and change; transportation and fiscal problems confronting local governments. Offered every semester.

Equivalent Course: PLN 309

GEG 310 URBAN TRANSPORTATION PLANNING

3, 3/0

Prerequisite: Junior or Senior level. Comparative study of the modes of transportation, transportation planning, and the benefits and effects of transportation. Emphasis on application to urban transportation. The importance of accessibility to the development of a modern metropolitan transportation system. Offered occasionally.

GEG 325 MAPS AND MAPMAKING USING GIS

3, 3/0

Maps as essential form of communication. Geographic information systems (GIS) tools for creating digital and hardcopy maps. Spatial thinking, concepts, principals and methods of mapmaking; map development and display using technology. Offered every semester.

Equivalent Course: PLN 325

GEG 359 ARCTIC GEOGRAPHY FROM AN INUIT PERSPECTIVE

3, 3/0; GA23

Prerequisite: One Social Science course. A study of the physical, political, economic and cultural environments of Arctic regions from an Inuit perspective. Topics focus on interaction between the Arctic environment and its peoples before and after Euro-American contact. Students will also study contemporary issues in today's Arctic. Offered occasionally.

GEG 360 GEOGRAPHY OF ASIA

3, 3/0; GA23

Prerequisite: One social science course. A regional geographic analysis of south, east, and southeast Asia. Overview of the continent's natural environment. Examination of the principal elements of the cultural environment: demography and ethnicity, urbanization, economy, and political structure. Interaction between the physical and cultural environments. Offered annually.

GEG 362 GEOGRAPHY OF THE UNITED STATES AND CANADA

3, 3/0; AH23

Prerequisite: One Social Science course. Basic geographic elements of North America including the natural environment, natural resources, economic activities, population, and urbanization. Offered occasionally.

GEG 365 SOIL SCIENCE AND MANAGEMENT

3, 3/0

Prerequisite: GEG 101 or GES 101 or BIO 213 Introduction to the study of soils, including physical and chemical properties, weathering and soil formation, productivity and management for agriculture, soil erosion and conservation, engineering properties, soil classification. Includes regular laboratory assignments and fieldwork to enhance understanding of soil properties. Offered occasionally.

GEG 382 WEATHER FORECASTING

3, 3/0

Prerequisites: Upper-division status and GEG 101 or GEG 240 or GES 241. A focus on synoptic and dynamic meteorology, as applied to weather forecasting. Weather conditions will be diagnosed using various case studies. Learn how to develop and to present weather forecasts. Emphasis on practice and interpretation of daily weather and modeled data. Offered occasionally.

GEG 383 EXTREME WEATHER

3, 3/0

Prerequisite: Upper-division status. In-depth look at meteorological phenomena related to severe and unusual weather-related events and patterns, weather-analysis tools, climate-change outlooks, and social implications; planning and management strategies to prepare and respond to severe and unusual weather. Offered occasionally.

GEG 384 ATMOSPHERIC SCIENCE

3, 3/0

Prerequisite: Upper-division status. Study of the earth's atmosphere as a unique place. Emphasis on atmospheric structure and composition, dynamics of motion, moisture and clouds, atmospheric chemistry, regional and local air pollution, aurora displays, and optical phenomena. Includes a study of atmospheres ranging from those of other planets to indoor air. Offered occasionally.

GEG 385 PAST CLIMATES AND ENVIRONMENTS

3, 3/0

Prerequisite: GEG 101 or GES 101. Methods and theories used in reconstructing and dating past climates. Focus on the past 2 million years, including proxies such as ice cores, sediment sequences, packrat middens, tree rings, corals, and historical data. Causes of climate change and human interactions emphasized. Offered occasionally.

GEG 386 WEATHER AND SOCIETY

3, 3/0

Prerequisites: Upper-division status. Use of climatic information in various aspects of our lives to solve practical problems with environmental, social, and economic implications. The importance of climate on agriculture, human health, severe weather management, litigation, commerce, architecture, and city planning. Offered occasionally.

GEG 389 TOPIC COURSE

3, 0/0

Current topics in Geography and Environmental Geography. Offered occasionally.

GEG 390 QUANTITATIVE METHODS IN GEOSCIENCES

3, 3/0

Prerequisites: Upper-division status. Introduction to statistical methods with a focus on spatial and time-series data analysis in Geo science applications. Statistical theory is reinforced through application of commonly used computer software to solve real world problems. Offered occasionally.

GEG 396 RESEARCH METHODS

3, 3/0; IN23, RE23

Prerequisites: GEG 390 or PLN390 or MAT 311, and 6 upper division credits in GEG/PLN courses. Research theories, designs, and methods relevant to conducting research in geography and planning. Research designs and methodologies for approaches with human subjects, human/social geography, physical geography, field-based research, and planning projects. Development of a research project proposal. Offered fall only.

GEG 405 URBAN ANALYSIS USING GIS

3, 3/0

Prerequisites: GEG 309 and GEG 325; or instructor permission. Data and techniques for analyzing urban systems and urban areas using Geographic Information Systems (GIS). Implementation of urban models introduced in GEG 309. Offered occasionally.

Equivalent Course: PLN 405

GEG 415 PROSEMINAR

3, 3/0

Investigation, examination, and discussion of topics of current interest in geography. Techniques and analysis of geographic research. Offered occasionally.

GEG 416 GEOGRAPHIES OF DEVELOPMENT

3, 3/0

Prerequisites: Upper division status. Development theories, progress, issues, and challenges in developing regions around the globe. In-depth analyses of factors influencing development policies and outcomes; impact of globalization on development efforts and practices in developing areas around the world. Offered occasionally.

GEG 418 REMOTE SENSING

3, 3/0

Prerequisites: Upper division status or Instructor Permission. Concepts of remote sensing and its applications. Principles and methods of electromagnetic radiation, aerial and space remote sensing. Basics of digital image processing, spatial data capture and interpretations from remote sensors. Offered fall only.

GEG 421 WATERSHED ANALYSIS

3, 3/0

Prerequisites: GEG 101 or GES 101 or BIO 213 or Instructor permission. Introduction to the systematic analysis of stream dynamics of watersheds and the impact of humans on these dynamics. Emphasizes the importance of physical, chemical, and biological processes in watershed management. Class discussion and a class project will focus on a practical watershed assessment problem. Offered occasionally.

GEG 423 BIOGEOGRAPHY

3, 3/0

Prerequisite: Upper-division standing. Global patterns of species distributions and the historic, environmental, and biological processes underlying these patterns. Spatial patterns of nature's geographic variation at multiple levels, from individuals to ecosystems to biomes. Impacts of humans and climate change on biogeography. Offered occasionally.

GEG 425 FUNDAMENTALS OF GIS

3, 3/0

Prerequisites: GEG/PLN 325 or equivalent, or instructor permission. Principles and methods of spatial data capture, automation, spatial database models and structures. Fundamentals of spatial data processing and analytical methods including spatial database query, database join and spatial join, geographic location and geographic coordinate systems, spatial geocoding, buffering, map overlay, and raster surface interpolations. Offered spring only.

GEG 428 ENVIRONMENTAL ASSESSMENT AND PLANNING APPLICATIONS IN GIS

3, 3/0

Prerequisite: GEG 425 or equivalent. Advanced concepts of GIS with a focus on spatial analytical applications in GIS for environmental assessment and planning. GIS theories and software implementations are presented through lecture and hands-on practice to solve real world environmental and planning problems. Offered fall only.

GEG 429 ADVANCED TOPICS IN GIS

3, 3/0

Prerequisite: GEG 425 or equivalent GIS course. Builds from the topics covered in GEG 425 Fundamentals of GIS, focusing on digital representation of the human and physical environment, including location referencing from a human perspective, database design, data quality issues (how to identify and document errors), spatial statistical analysis using GIS, the fourth dimension (time) in GIS, and understanding spatial analysis algorithms and models. Offered occasionally.

GEG 430 SENIOR THESIS

3, 3/0

Prerequisites: GEG/PLN 390 and GEG/PLN 396 C or better and senior geography or planning major. Research in geography and presentation of selected research-related topics. Offered by contract only.

GEG 478 GLOBAL CHANGE

3, 3/0

Prerequisite: GEG 101 or instructor permission. Interdisciplinary study of the principles needed to understand human impacts on the natural environment. Climate variability and global warming; nutrient cycling; land-use issues; connections and feedbacks among climate, ecosystems, and biogeochemistry; impacts of global change on society; policy measures; potential solutions. Offered occasionally.

GEG 485 INTERACTIVE AND WEB-BASED MAPPING

3, 3/0

Prerequisite: GEG 325. Introduction to interactive and web based mapping. Explore different approaches to communicating with maps on the Internet. Learn how to create web-based mapping applications. Offered occasionally.

GEG 488 INTERNSHIP

1-12, 0/0

Prerequisites: GEG 101 and 6 credit hours of geography or planning coursework at the upper-division level; minimum cumulative and major GPA of 2.5; background of courses or experience within area of interest; adviser and department chair permission. Guided, supervised field experiences that complement the academic program. Offered every semester.

GEG 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

GEG 497 WORKSHOP

1, 0/0

Geography workshop. Offered occasionally.

GEG 499 INDEPENDENT STUDY

3-12, 0/0

Offered occasionally.

Geosciences (GES)

GES 101 INTRODUCTORY GEOLOGY

3, 3/0; NS23

Physical aspects and processes on and in the Earth, including the formation and change of properties of rocks and minerals, the theory of plate tectonics, the Solar System, volcanoes, the continents and the oceans. Aspects of earthquakes, tsunamis, glaciers, the ice ages and environmental issues. Concurrent registration in GES 103 is recommended for sciences majors. Offered every semester.

GES 102 HISTORICAL GEOLOGY

3, 3/0

Introduction to principles and methods of delineating Earth history from the rock record first locally then through correlation and dating techniques worldwide. The role of plate tectonics in changing continental configurations. Survey of the history of the Earth and from the fossil record its life forms through geologic time. Offered every year

GES 103 INTRODUCTORY GEOLOGY LABORATORY

1, 0/2

Identification of rocks and minerals. Map and aerial photograph interpretation. Offered occasionally.

GES 104 GEOLOGY OF THE SEVEN SUMMITS

3, 2/2

Themed-based introductory geology course based on highest mountain on each continent known as the Seven Summits. Mountains represent a range of geological processes and show impact of climate change. Readings, maps and spectacular satellite images used to understand geology of the Seven Summits. Offered every Fall semester.

GES 111 OCEANOGRAPHY

3, 3/0; NS23

Study of the oceans including the application of geology, biology, chemistry, physics and engineering and how they interact in different parts of the ocean environment. Strong interdisciplinary focus of ocean processes and how they are connected to our lives. Topics include how technology has advanced our understanding of the oceans, sampling seawater and sediments and mapping the seafloor, opening and closing of ocean basins, formation and erosion of beaches, life in the oceans, ocean resources, marine pollution, and the role of the oceans in global climate change. Offered fall only.

GES 123 ENVIRONMENTAL EARTH SCIENCE

3, 3/0; NS23

An investigation of the impact of society on the natural environment. Examines natural resources; global climate change; and soil, water, and land use issues. The complex interrelationship of global systems and societies' attempts to control or alter them. The unique perspective of geoscientists to environmental issues. Offered every semester.

GES 124 NATURAL HAZARDS

3, 3/0; NS23

A study of natural events and processes that impact human life and health, with an emphasis on catastrophic geological events including earthquakes, volcanic eruptions, and landslides. Includes causes, physical effects, prediction and societal implications.

GES 131 INTRODUCTORY ASTRONOMY

3, 3/0; NS23

Non-mathematical survey of the astronomical universe, including naked-eye astronomy, physical nature of planets, satellites, stars, galaxies, and the "Big Bang". How composition, distance, temperature, size, mass, and age are found for stars. Origins of planets, stars, and galaxies. Invention of technology as a driving force in astronomy. Planetarium visualizations, assignments, and demonstrations.

GES 132 THE SOLAR SYSTEM

3, 3/0; NS23

Makeup and characteristics of our solar system; formation hypotheses; geologic processes acting on solar system bodies; comparison of the planets; the search for other solar systems and life elsewhere. Expansion of solar system exploration due to advances in technology and its effect on society.

GES 189 TOPIC COURSE

1-4, 1/0

Current introductory topics in Geology and Earth Sciences. Offered occasionally.

GES 200 FIRST YEAR GEOLOGY EXPERIENCE

3, 1/4

Introduction to research for geology and earth sciences students and preparation for engaging in undergraduate geology research. Laboratory and field techniques used by geoscientists and the types of questions investigated by geoscientists. Students conduct a class research project to investigate a laboratory or field problem. Includes field trips. Offered every spring semester.

GES 201 PHYSICAL GEOLOGY

4, 3/2; IN23, RE23

First of a two-course sequence introducing the physical processes that formed Earth and have shaped our planet through time. Topics include Earth materials; plate tectonics; climate, ocean, and atmosphere; and deep time. Student experiences through skill-building activities and experiments. Field trips required. Offered every fall semester.

GES 202 EARTH AND ENVIRONMENTS THROUGH TIME

4, 2/4

How the Earth and its atmosphere and biosphere have changed over geologic time, and how this has impacted life on Earth. Labs include the identification of major fossil groups and interpreting geologic data used to construct ancient environments. Required field trips. Offered every spring semester.

GES 241 METEOROLOGY

3, 3/0; NS23

An introduction to weather, including the makeup of the atmosphere, seasonality, heat and radiation balance, temperature, humidity, and precipitation, atmospheric motion, atmospheric pressure and wind, air masses and fronts, severe weather, meteorological instrumentation, local weather, climate controls, and synoptic forecasting. Includes laboratory modules. Emphasis on the relationship between weather systems, technology, and humans. Offered at least once a year.

Equivalent Course: GEG 241

GES 295 RESEARCH EXPERIENCE IN EARTH SCIENCES

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

GES 300 SEDIMENTOLOGY

3, 3/0

Prerequisites: GES 101 and GES 103 or GES 201. Introduction to the dynamics of erosion, transport, deposition of sedimentary particles. Introduction to modern and ancient sedimentary environments. Offered fall only.

GES 301 STRATIGRAPHY

3, 3/0

Prerequisites: GES 101 and GES 103 or GES 201. Prerequisite or corequisite: GES 102. Basic principles and interpretation of the stratigraphic record, with emphasis on the practical application of stratigraphic data in interpretation of earth history and exploration for fossil fuels and groundwater resources. Offered spring only.

GES 302 INVERTEBRATE PALEONTOLOGY

4, 4/2

Prerequisite: GES 101 or GES 201 or instructor permission. Prerequisite or corequisite: GES 102. Basic principles of the nature and interpretation of the invertebrate fossil record, with an overview of the types of organisms commonly preserved as fossils. Emphasis on practical applications of paleontology. Offered occasionally.

GES 303 MINERALOGY

4, 3/3

Prerequisites: GES 101 and GES 103 or GES 201 or instructor permission; one semester chemistry recommended. Crystals, minerals, and rocks, emphasizing description, identification, and origin. Offered fall only.

GES 306 SEDIMENTOLOGY AND STRATIGRAPHY

4, 3/1

Prerequisites: GES 101 and GES 103, or GES 201, or equivalent or instructor permission. The study of sediments and strata. Topics include: properties of fluid flow; sediment transport processes; sediment texture and composition; sedimentary structures; facies and stratigraphic concepts; sedimentary environments; and interpretation of strata. Field excursions in WNY required for some laboratories.

GES 307 GEOMORPHOLOGY

4, 3/3

Prerequisite: GES 101 or GEG 101 or GES 201 or instructor permission. Internal and external processes and structural controls that shape the surface of Earth and other solid solar system bodies. Emphasis on selected geologic environments. Field trips required. Offered spring only.

GES 323 THIRD- YEAR RESEARCH AND FIELD METHODS EXPERIENCE

3, 1/4

Prerequisites: GES 203 or instructor permission. The second of a three-course sequence focused on basic to intermediate data analysis methods in the geosciences and the application these methods to explore relevant geology problems. Critical thinking about how geologic research contributes to understanding Earth history and global challenges related to resources and hazards. Offered every fall semester.

GES 331 MODERN SOLAR SYSTEM ASTRONOMY

3, 3/0

Prerequisite: GES 131 or equivalent. The moon and planets, their appearance, atmospheres, and surfaces. Planetary magnetic fields, asteroids, meteoroids, comets. Theories of the origin of the planetary system, the possibility of extraterrestrial life. Emphasis on recent problems in our understanding of the solar system. Offered occasionally.

GES 332 STELLAR AND GALACTIC ASTRONOMY

3, 3/0

Prerequisite: GES 131 or equivalent. How astronomers have determined the properties, energy, masses, and composition of stars, stellar evolution, the structure of the galaxy, and the movement of stars in the galaxy. Offered occasionally.

GES 335 METHODS OF OBSERVATIONAL ASTRONOMY

3, 3/0

Prerequisite: GES 131 or equivalent. Locating celestial objects in the night sky. Use of astronomical telescopes to locate, observe, and photograph stars, nebulae, and galaxies. Use of observing aids. Offered occasionally.

GES 339 ASTRONOMY AND COSMOLOGY

3, 3/0

Prerequisite: GES 131 or equivalent. Cosmology, the primeval fireball, quasars, pulsars, black holes, origin of the elements. Offered occasionally.

GES 350 ENVIRONMENTAL GEOCHEMISTRY

3, 3/0

Prerequisites: GES 101 or GES 201 and upper-division status. Chemical nature of the earth, emphasizing chemistry associated with the polluted environment. Offered alternate years.

GES 360 FORENSIC GEOSCIENCE

3, 3/0

Prerequisite: Upper-division status or permission of instructor. Application of the principles of earth science to the law. With a "hands-on" approach, and details from actual criminal cases, introduces a variety of geological subjects such as rock and mineral types, geological and topographical maps, fossils, sand and soil through their forensic application. Offered alternate years.

GES 389 TOPIC COURSE

3, 0/0

Current advanced topics in Geology and Earth Sciences. Offered occasionally.

GES 401 IGNEOUS AND METAMORPHIC PETROLOGY

4, 3/3

Prerequisite: GES 303 or permission of instructor. Advanced study of igneous and metamorphic rocks and petrogenetic processes, including the thermodynamics of magma, crystallization and recrystallization, and the field relations, fabrics and tectonics associated with these rocks. Required term project and field trips. Offered occasionally.

GES 403 GLACIAL GEOLOGY

3, 3/0

Prerequisite: GES 307. Glacial processes, landforms, and landscapes, with emphasis on New York State. Develops a model for the sequence of glacial events and the causes of climate change. Field trips. Offered occasionally.

GES 405 GEOLOGY OF NORTH AMERICA

3, 3/0

Prerequisites: GES 101 or 201 and GES 102 or instructor permission. Major physical provinces of the United States and adjacent areas; their geologic history, structure, and topographic development. Offered occasionally.

GES 408 STRUCTURAL GEOLOGY

4, 3/3

Prerequisites: GES 101 and GES 103 or GES 201. Folds, faults, and other structural features in sedimentary and metamorphic terrains. Introduction to rock mechanics, regional tectonics. Offered spring only.

GES 410 UNDERGRADUATE RESEARCH SEMINAR

1, 1/0

Prerequisites: GES 101 and GES 103 or GES 201; instructor permission. Common topics related to undergraduate research in the geosciences including research methods, handling data, making interpretations, preparing for oral and poster presentations, and preparing for graduate school and professional geology. Must be engaged in (or planning) research with an Earth Sciences faculty member. May be taken more than once. Offered every semester.

GES 418 STRUCTURAL GEOLOGY FIELD EXPERIENCE

1, 1/0

Prerequisites: GES 303 or instructor permission; Corequisite: GES 408. Field study topics in igneous and metamorphic rocks related to field sites visited in conjunction with GES 408 Structural Geology. Required weekend field trip (4 days). Students must be enrolled in GES 408. Offered every spring semester.

GES 428 GEOLOGICAL HAZARDS

3, 3/0

Prerequisites: GES 306, GES 307, GES 408 or instructor permission. Causes, risk assessment, and mitigation of geologic hazards in marine and terrestrial environments, including volcanos, earthquakes, tsunamis, shoreline erosion, flooding, subsidence, avalanches, landslides, mud and debris flows. Emphasis on identifying and modeling underlying natural and human-induced disturbances that result in hazards and delineating risk potential. Use of case studies to map and model hazards with consideration of mitigation options. Offered every fall semester.

GES 431 PLANETARIUM SEMINAR

3, 2/2

Prerequisites: Two semesters of astronomy. The celestial sphere; operating, maintaining, and administering the planetarium; audiovisual aids in the planetarium; planetarium programming; using the planetarium to teach. Includes supervised teaching experience. Offered occasionally.

GES 433 GEOLOGY INDEPENDENT RESEARCH

3, 1/4

Prerequisites: GES 203 and GES 323, or instructor permission. Designing and conducting original undergraduate research in an approved geoscience topic. Advanced-level research methodologies are applied and research findings are presented using professional writing and oral presentations. Faculty mentor guidance is provided throughout the course. May be taken more than once. Offered every semester.

GES 444 GLOBAL SYSTEMS GEOMORPHOLOGY

3, 0/0

Prerequisite: GES 307. Fundamentals of remote sensing and image processing will be presented early in the course as an introduction to the interpretation of planetary data sets. The goal is to understand the relationships between processes influencing landscape

evolution on the Earth and to address possible reasons for similarities and/or differences in the number and intensity of processes operating on other planets. Offered occasionally.

GES 450 FIELD GEOLOGY

3, 2/3

Prerequisites: GES 303 and GES 408, or permission of instructor. Theory and application of principles and techniques in the mapping and interpretation of geological structures in the field. Using geological data to construct geological maps and reports. Classroom and field study. Includes field trips and technical report writing. Offered fall only.

GES 452 HYDROGEOLOGY

3, 3/0

Prerequisites: GES 101 or GEG 101 or GES 201 and at least one 300-level GES course. Fundamentals of the occurrence, movement, and management of our largest resource of readily available fresh water. Includes groundwater protection and remediation of already contaminated supplies to increase environmental awareness. Offered every year.

GES 460 ENVIRONMENTAL FIELD METHODS

3, 2/2

Prerequisites: Completion of IF Natural Science requirement, IF Mathematics/Quantitative Reasoning requirement, and upper division standing. GES 350 is strongly encouraged. Applied study of environmental contaminant migration and distribution with particular emphasis on sampling and detection methods. Discussion of federal and local environmental laws and regulations, classification of hazardous chemicals, and remediation approaches used by environmental professionals. Offered spring only.

GES 465 TECTONICS

3, 3/0

Prerequisites: GES 101 or GES 201 and GES 408 (or equivalent), upper-division status or instructor permission. Advanced principles, evidence and examples of the plate tectonics paradigm as the unifying theory of geology. Topics include kinematics of plates, the nature of plate boundaries and the analysis of theories involved in the current and historical design of the paradigm. Required term project and oral presentations. Offered occasionally.

GES 471 GEOLOGY RESEARCH SEMINAR

3, 3/0

Prerequisites: GES 203 and GES 323 or instructor permission. Seminar on common topics related to undergraduate research in the geosciences including research methods, handling data, making interpretations, preparing for oral and poster presentations, and preparing for graduate school and professional geology. These topics are addressed from an advanced standpoint. Offered every fall semester.

GES 472 GEOLOGY SENIOR SEMINAR

3, 3/0

Prerequisites: Senior status Geology or Earth Science major, or instructor permission. Detailed presentation of a selected topic in geological sciences. Capstone course integrating geological content covered in the sequence of courses taken in the major. High level survey of a specific topic reflecting current and emerging themes in the geosciences; advanced data analysis and critical review of scientific literature. Interconnectedness of and feedbacks between geoscience processes. Connections between the geosciences and other disciplines. Offered spring semester only.

GES 488 INTERNSHIP

1-12, 0/0

Prerequisites: 2.5 GPA overall. Requires department application and approval. Practical work on an individual basis with a participating organization.

GES 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Approval of a faculty sponsor. Environment-, energy-, geology-, or astronomy -related areas.

GES 497 WORKSHOP

1, 0/0

Workshop on topics in Geology or Earth Sciences. Offered occasionally.

GES 498 HONORS RESEARCH

1-3, 0/0

Prerequisite: Acceptance in geology or earth science honors program. Includes completion of honor's thesis and seminar. May be repeated for a maximum of 6 credit hours.

GES 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisite: Faculty sponsor permission. Environment-, energy-, geology-, or astronomy-related areas.

Science (SCI)

SCI 100 CONTEMPORARY SCIENCE

3, 2/2; NS23

Prerequisite: Must be a Middle Early High School student. Introduction to the role of science in contemporary society; the process of science for solving problems and organizing information to understand science and technology; contemporary issues and case studies illustrate the methods of science. Offered Every Semester.

Equivalent Course: HON 102

SCI 105 PHYSICAL SCIENCE FOR NONSCIENCE STUDENTS

3, 2/2

Inquiry approach to the physical sciences; extensive use of materials; designed for students interested in a nontechnical analysis of the procedures of science. Offered occasionally.

SCI 231 POLLUTION, THE ENVIRONMENT, AND SOCIETY

3, 2/2

Scientific and societal implications of present-day global environmental problems such as ecology, global warming, population, and pesticides. Causes and effects of, and possible solutions to, worldwide environmental problems with implications from conservation, chemistry, health, and society. Offered occasionally.

SCI 232 ENERGY AND SUSTAINABILITY

3, 2/2

Regional and global energy use and sustainability; environmental, economic, individual, and societal perspectives; major energy alternatives. Offered alternate years.

SCI 340 SCIENTIFIC STUDIES IN ENVIRONMENTAL POLLUTION

3, 3/0

Prerequisites: 9 credit hours of science and 3 credit hours of environmental science, or permission of instructor. In-depth examination of various types of environmental pollution. A field-based project is used to illustrate data-collection techniques. Offered occasionally.

Government, Planning, and Philosophy (PHI, PLN, PSC)

Philosophy (PHI)

PHI 101 INTRODUCTION TO PHILOSOPHY

3, 3/0; HU23

Introduction to the literature and problems of philosophy. Offered every semester.

PHI 102 INTRODUCTION TO ETHICS

3, 3/0; HU23

Various views of how we ought to live and how society should be organized, considered in the context of discussions about the "good" life and the "good" society. Offered every semester.

PHI 103 INTRODUCTION TO LOGIC

3, 3/0; MQ23, RE23

Introduction to practical and mathematical reasoning and argumentation; recognition, classification, evaluation, and construction of everyday arguments; Venn diagrams as geometric models for assessing the validity of categorical syllogisms; truth tables as algebraic models for assessing the validity of sentential arguments. Offered every fall.

PHI 107 INTRODUCTION TO MATHEMATICAL LOGIC

3, 3/0; MQ23

Prerequisite: CWP 102. Introduction to two types of mathematical models for assessing the correctness of reasoning. Venn diagrams discussed as geometric mathematical models for assessing categorical syllogisms. Sentential logic and monadic predicate logic discussed as systems of algebraic mathematical models for assessing the reasoning associated with these systems. Offered alternate years.

PHI 110 THE MEANING OF LIFE

3, 3/0; HU23

Exploration of a number of fundamental philosophical questions that make their way into everyday life, specifically related to the question, "What is the meaning of (my) life?" or its Socratic equivalent, "How ought I to live?" Critical analysis of classical and contemporary works-philosophical and autobiographical-to develop clearer, more informed, and better-reasoned views about the questions, if not the answers. Offered alternate years.

PHI 111 ETHICS FOR SCIENTISTS

3, 3/0; HU23

Introduction to philosophical ethics with special emphasis on issues pertaining to science. Ethical theories and ethical implications of scientific discoveries. Evolution and ethics, human nature, the fact-value distinction. May include selected topics in applied ethics, e.g. personhood, environmental ethics, bioethics. Offered annually.

PHI 112 PROFESSIONAL ETHICS

3, 3/0; HU23

Introduction to philosophical and professional ethics. Fundamental concepts in professional ethics and their application to contemporary ethical issues. Opportunities and problems of capitalism, globalization, responsibilities of corporations, rights and duties of employees, ethical leadership. Offered annually.

PHI 113 ENVIRONMENTAL ETHICS

3, 3/0; HU23

Introduction to environmental ethics. Ethical theories and ethical implications of human interactions with the environment. Issues such as sustainability, environmental justice, preservation, the value of species. Offered occasionally.

PHI 115 MINDS AND MACHINES

3, 3/0; HU23

Introduction to questions in the study of the philosophy of mind. Explores the difficulties of studying the mind and limitations of scientific investigation into the mind, including using data-processing machines as a model of the mind; the problem of other minds; questions regarding free will; what it means to be conscious; the claims of weak and strong A.I.; and the possibility of consciousness or intelligence in animals, in the natural world, and in machines. Offered occasionally.

PHI 189 TOPIC COURSE

1-3, 0/0

Current topics in Philosophy. Offered occasionally.

PHI 221 PHILOSOPHY AND YOGA

3, 3/0

Introduction to Indian philosophy through the study of the theory in and the practice of yoga. Examination of the eight limbs of yoga, as well as the practice of yoga as a whole, including the more familiar part popular in the U.S. Description of and examination of the other seven limbs. Philosophical issues such as the nature of the self, the nature of reality, the correct forms of knowledge, and what it means to be good, among others, from the perspective of this tradition. Offered annually.

PHI 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

PHI 300 PROBLEMS OF PHILOSOPHY

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. Selected problems in epistemology, metaphysics, ethics, and certain movements in contemporary philosophy. Offered occasionally.

PHI 301 JUSTICE: LIBERTY VS. EQUALITY

3, 3/0; GA23

Prerequisite: CWP 102 or one course in philosophy. Examination of moral presuppositions and justifications of forms of government and economic systems, as well as interrelations between government and economics. Offered occasionally.

PHI 304 PHILOSOPHY OF LAW

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. The nature and justification of legal institutions; emphasis on the problem of legal punishment and on the legal enforcement of morality. Offered occasionally.

PHI 307 SYMBOLIC LOGIC

3, 3/0

Prerequisites: PHI 107 or Instructor Permission. First-order logic with identity and its uses in evaluating ordinary language arguments. Syntax, semantics, and system of natural deduction. Offered occasionally.

PHI 308 PHILOSOPHY OF LOVE AND SEX

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. Classic and contemporary philosophic theories of the nature, value, and purpose of human love and sexuality; discussions of Plato, Aquinas, Ortega, Sartre, and Kierkegaard; value judgments implicit in the concepts of "supervision," "good sex," and "true love," as well as problems encountered in finding clear definitions for such terms; considers certain moral arguments found in such areas as abortion and marital intercourse. Offered occasionally.

PHI 309 KNOWLEDGE AND JUSTIFICATION

3, 3/0

Prerequisites: One PHI course or Instructor Permission. Investigation of knowledge and justification; topics may include perception, memory, consciousness, reason, and testimony as sources of knowledge and justification, the nature, structure, and scope of knowledge and justification, and skepticism. Offered occasionally.

PHI 310 HISTORY OF ETHICS

3, 3/0

Prerequisite: Upper-division status or one course in philosophy. Historical study of the writings of great Western philosophers as they examine ethical questions about self-interest, freedom, duty, and happiness in regard to the moral life. Includes Plato, Aristotle, Kant, Mill, and Hume. Offered annually.

PHI 312 PHILOSOPHY OF MIND

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. Investigation of the mind-body problem; Cartesian dualism, logical behaviorism, the identity theory, functionalism, eliminative materialism, property dualism, qualia, and intentionality. Offered alternate years.

PHI 314 RIGHTS AND RESPECT

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. Historical and analytical study of important developments in twentieth-century ethical theory; naturalism, noncognitivism, prescriptivism, rationalism; the ideas of Rawls, Nozick, Gauthier, and Gewirth. Offered occasionally.

PHI 324 ZEN BUDDHISM

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. Zen as a paradoxical method by which suffering of existence is transformed into everyday enlightenment; contemporary practices of Zen and its historical origins in Buddha's "complete and unexcelled" enlightenment and in Lao-tzu's living in harmony with the Tao. Offered occasionally.

PHI 325 PHILOSOPHY OF EMOTION

3, 3/0

Critical analysis of the ontological status of emotions and the epistemological questions of how to study them. Focus on ontological questions about the nature of emotions as natural kinds or normative kinds, on the necessary and sufficient conditions of emotions, including somatic content, physiological changes, bodily expression, and cognitive content. Offered occasionally.

PHI 333 PHILOSOPHY OF NATURAL SCIENCES

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. The structure and nature of science. Epistemological and ontological implications of scientific theories (e.g. quantum mechanics, evolutionary biology). The role of evidence, confirmation, falsification in science. Offered occasionally.

PHI 335 GOD AND RELIGION

3, 3/0

Prerequisites: One PHI course. Application of philosophical reasoning and methodology to matters concerning God and religion. Traditional proofs of God's existence and critiques of these proofs; the problem of evil and various responses to this problem; alternatives to the traditional proofs; differences between faith and reason; and defenses and critiques of religious worldviews. Offered every third semester.

PHI 336 PHILOSOPHY OF EMOTION

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. Critical analysis of the ontological status of emotions and the epistemological questions of how to study them. Focus on ontological questions about the nature of emotions as natural kinds or normative kinds, on the necessary and sufficient conditions of emotions, including somatic content, physiological changes, bodily expression, and cognitive content. Offered occasionally.

PHI 351 ETHICS BOWL

3, 3/0

Prerequisite: One PHI course or instructor permission. Preparation for a competition in which students are judged on their ability to deploy intricate ethical reasoning in addressing case studies from practical and professional ethics. Students develop well-informed opinions about ethically complex, everyday scenarios, orally present these opinions and supporting arguments, and provide critical oral responses to the opinions and arguments of other students and judges. Some students compete in the regional and/or national Intercollegiate Ethics Bowl, others in the Buffalo State Ethics Bowl. Offered occasionally.

PHI 360 AFRICANA PHILOSOPHY

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. Philosophical thought across the African diaspora. Both historic and contemporary responses to issues specific to the Black experience across the globe, such as understanding freedom, rationality, and humanity from the position of the formerly enslaved and/or colonized, and analysis regarding the intersections of race, gender, and white supremacy. Offered every spring.

Equivalent Course: AAS 360

PHI 361 RACE AND PROGRESS

3, 3/0

Prerequisite: CWP 102 or one course in philosophy. Both historic and contemporary responses to issues specific to the African American experience, such as understanding the concepts of race and racism, social and political forces required to generate progress, and the limits of progress within the Black community. Offered fall semester only.

Equivalent Course: AAS 361

PHI 389 TOPIC COURSE

3, 0/0

Current topics in Philosophy. Offered occasionally.

PHI 401 PROBLEMS IN PHILOSOPHY SEMINAR

3, 3/0

Prerequisites: CWP 102, and upper-division status or one PHI course. Intensive analysis of selected topics in philosophy. Offered annually.

PHI 402 SEMINAR IN HISTORY OF PHILOSOPHY

3, 3/0; IN23, RE23

Prerequisites: CWP 102, PHI 317, and PHI 318. Intensive study of particular figures or periods in the history of philosophy. Offered occasionally.

PHI 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

PHI 498 HONORS RESEARCH

1-3, 0/0

Offered occasionally.

PHI 499 INDEPENDENT STUDY

3-12, 0/0

Offered occasionally.

Planning (PLN)

PLN 215 INTRODUCTION TO URBAN AND REGIONAL PLANNING

3, 3/0; DI23

Introduction to the practice, history and theory, critical issues, and tools and methods of plan making of urban and regional planning. Topics covered include sustainability, land use, housing, community and neighborhood planning, and transportation. Offered fall only.

PLN 225 PLANNING METHODS

3, 3/0; IN23, RE23

Prerequisites: PLN 215. Introduction to urban and regional planning methods and techniques commonly used in plan-making. Methodological skills, including data collection and analysis; survey design; public participation and engagement; the use of technology such as GIS, SketchUp, Google Earth, and Excel; public speaking; and development of technical writing. Offered fall only.

PLN 295 RESEARCH EXPERIENCE IN PLANNING

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

PLN 309 URBAN GEOGRAPHY

3, 3/0; DI23

Prerequisite: One social science course. Internal spatial structure of American metropolitan areas and their relationships. Spatial arrangements of land uses; ethnics, racial and economic composition of the population; dynamics of population growth and change; influence of minorities on cities and suburbs; geographic consequences of poverty and segregation on growth and change; transportation and fiscal problems confronting local governments. Offered every semester.

Equivalent Course: GEG 309

PLN 315 LAND USE PLANNING AND DEVELOPMENT

3, 3/0

Prerequisites: PLN 215. The composition and administration of municipal development regulations and zoning ordinances, including their relationship to current and long-range planning. Examination of methods to determine site feasibility and design; inventory existing land uses; and determine locations for future land uses. Regulatory approval process for land development projects, including environmental review. Offered occasionally.

PLN 325 MAPS AND MAPMAKING USING GIS

3, 3/0

Maps as essential form of communication. Geographic information systems (GIS) tools for creating digital and hardcopy maps. Spatial thinking, concepts, principals and methods of mapmaking; map development and display using technology. Offered every semester.

Equivalent Course: GEG 325

PLN 340 LAND USE PLANNING AND ZONING

3, 3/0

Prerequisite: PLN 215. Composition and administration of site plan local laws, subdivision regulations, and zoning ordinances and their adoption. Practical and legal relationship between current planning and long-term planning. New York state legislation, including relevant environmental regulations. Offered spring only.

PLN 341 HOUSING AND EQUITABLE URBANISM

3, 3/0; DI23

Prerequisite: Junior or Senior standing; one Social Science course. Examines housing's place in American society and the role of public policy. From a position of "decent and affordable housing" as a human right, explores the inequalities of the current housing system and the role of planners and public administrators in creating more socially equitable housing policy. Offered occasionally.

PLN 350 PLANNING FOR SUSTAINABLE COMMUNITIES

3, 3/0

Prerequisites: Junior or Senior Standing or Instructor Permission. Theoretical and methodological examination of the role planning plays in creating sustainable communities. Focus on land use and urban design, housing, green buildings, transportation, food systems, and water resources. Relevant plans and policies at varying geographic scales. Measures of sustainability. Offered occasionally.

PLN 380 NEIGHBORHOOD PLANNING AND COMMUNITY DEVELOPMENT

3, 3/0

Prerequisites: PLN 215. Explores the many forms, methods, and tools of neighborhood planning, community development, and engagement efforts aimed at revitalization in the context of historic and contemporary public and private sector policies and practices that have contributed to current challenges. Offered occasionally.

PLN 401 PLANS AND PLAN-MAKING

3, 3/0

Prerequisites: Upper-division status and PLN 215. The role of comprehensive planning as it influences future patterns of municipal land use. Techniques for identifying issues and reaching consensus on goals for future development. Detailed examination of the process of preparing and adopting a master plan and stakeholder participation, including inter-municipal collaboration. Offered fall only.

PLN 405 URBAN ANALYSIS USING GIS

3, 3/0

Prerequisites: GEG 309 and GEG 325; or instructor permission. Data and techniques for analyzing urban systems and urban areas using Geographic Information Systems (GIS). Implementation of urban models introduced in GEG 309. Offered occasionally.

Equivalent Course: GEG 405

PLN 412 COMMUNITY PLANNING AGENCIES AND ISSUES

3, 3/0

Prerequisite: PLN 315 and GEG 199 or CIS 101 or competence in computing. The role of the professional planner in a range of government and private agencies; introduction to the tools needed by the professional planner; discussion of planning techniques and issues. Emphasis on professional ethics and the function of staff in a variety of planning agencies. Offered occasionally.

PLN 415 SEMINAR IN PLANNING

3, 3/0

Prerequisite: PLN 315. Investigation, discussion, and research of topics of current interest in planning or economic development; techniques and methods of analysis used in planning process. Topics vary each semester. Offered occasionally.

PLN 431 PLANNING PRACTICUM

3, 3/0

Prerequisites: PLN 225 or PAD 390 and senior planning major. Capstone experience; students engage in a group project focused on applying specific knowledge and skills gained in the program to a real world planning problem. Utilizes a project-based research approach to identify a problem or issue and develop a plan to address it. Offered spring only.

PLN 488 INTERNSHIP

1-15, 0/0

Prerequisites: PLN 215 and 6 credit hours of planning coursework at the upper-division level; minimum cumulative and major GPA of 2.5; background of courses or experience within area of interest; adviser and department chair permission. Guided, supervised field experiences that complement the academic program. Offered every semester.

PLN 495 SPECIAL PROJECT

3, 0/0

Offered occasionally.

PLN 499 INDEPENDENT STUDY

3, 0/0
Offered occasionally.

Political Science (PSC)

PSC 101 INTRODUCTION TO GOVERNMENT AND POLITICS

3, 3/0; SS23

The nature and scope of political science; ideological foundations of politics; comparative study of the governments of constitutional and developing systems; the development and adaptation of democracy; the dynamics of politics and functions of political institutions. Offered every semester and summer.

PSC 102 INTRODUCTION TO AMERICAN GOVERNMENT AND POLITICS

3, 3/0; AH23

Historical development of American government and politics. Conceptual studies of the key transformative phases of institutions (U.S. Constitution, federalism, Congress, the courts, the presidency), politics (political parties, interest groups, media, social movements), political economy (regulation, federal bureaucracy) and political culture (citizenship and identity, public opinion, political behavior). Offered Every Semester.

PSC 104 INTERNATIONAL RELATIONS

3, 3/0; SS23

Elements of national power, religion, global balance of power and collective security systems; instruments of international politics: diplomacy, propaganda, and war; forces of nationalism. Offered at least once a year.

PSC 189 TOPICS IN POLITICAL SCIENCE

1-3, 1/0

In-depth examination of rapidly changing disciplinary issues, topics, or practices in government and politics; offered occasionally.

PSC 203 POLITICAL ANALYSIS

3, 3/0

Prerequisite: PSC 101 or PSC 102. Design, execution, and interpretation of research in the field of political science including quantitative and qualitative research methods, theory building, and constructing and testing hypotheses; data collection techniques including survey research methods. Offered every semester and summer.

PSC 204 POLITICAL STATISTICS

3, 3/0

Prerequisite: PSC 101 or PSC 102 and PSC 203. Introduction to quantitative political science research methods, univariate, bivariate and multivariate analysis, statistical inference, sampling, hypothesis testing, measures of association, tests of statistical significance and model assumptions. Offered every semester and summer.

PSC 210 THE AMERICAN PRESIDENCY

3, 3/0

The contemporary presidency, constitutional roles, political powers and the factor of personality, the executive and other political and social institutions, problems and prospects for the presidency. Offered at least once a year.

PSC 215 URBAN GOVERNMENT

3, 3/0

Introduction to the political economy of urban areas in the United States; focus on explanation of current urban public policies; public vs. private political power, bureaucracy, citizen organization. Offered fall only.

PSC 218 AFRICAN AMERICAN POLITICAL CULTURE

3, 3/0

Political beliefs, attitudes, and practices that pertain to African American politics in a cultural context; causality and linkage inherent in the reciprocal relationship between African Americans and the American political system. Offered fall only.

Equivalent Course: AAS 218

PSC 221 JUDICIAL PROCESS AND POLITICS

3, 3/0

Detailed examination of the structure of American courts; the procedures and operating norms of judges, lawyers, and litigants; the impact of law on society, and alternative approaches to dispute resolution. Offered occasionally.

PSC 223 SOCIAL JUSTICE THROUGH THE LAW

3, 3/0

Focus on diversity, social justice, public interest, and the law. Investigation of the legal profession's role to advance diversity and social justice along with analysis of structural factors contributing to inequality. power, racism, sexism, social class, and wealth. Analysis of means individuals can work for social justice. Offered occasionally.

PSC 225 WOMEN IN AMERICAN POLITICS

3, 3/0; DI23

Influences of female participation in the American political system; the political behavior of American women; the implications of these influences and behaviors. Offered occasionally.

PSC 240 EUROPEAN POLITICAL SYSTEMS

3, 3/0

The structure and dynamics of politics in major European countries with emphasis on political behavior and political processes; issues of economic and political integration. Offered occasionally.

PSC 250 INTRODUCTION TO LAW

3, 3/0

Basics of law, the judicial system, courtroom procedures, distinctions between different kinds of law, and the importance of these distinctions. Constitution and rights defined in the Constitution. Responsibilities of attorneys in the judicial system and to their clients. Skills involved in learning and practicing law; writing legal briefs; oral presentation of legal arguments. Offered every semester and summer.

Equivalent Course: PSC 350

PSC 302 INTERNATIONAL CONFLICT AND PEACEFUL RESOLUTION

3, 3/0

Prerequisites: Junior or senior standing. Key theoretical traditions and research in international and intrastate conflict and conflict resolution through in-depth empirical analysis. Offered occasionally.

PSC 305 ENVIRONMENTAL POLICY

3, 3/0

Prerequisite: PSC 102 or PSC 104. International public-policy responses to environmental challenges; viewpoints on ecological limits, regulatory responses, and the role of business. Population growth, international climate change, sustainable development, cap-and-trade approaches to pollution reduction, and the correlation between violent conflict and environmental stress. Offered occasionally.

PSC 308 INTERNATIONAL ORGANIZATIONS AND INTERNATIONAL LAW

3, 3/0

Prerequisite: Junior or senior standing. Political and legal viewpoints of international organizations; political and administrative concepts and theories concerning international organizations and law such as roles and effects of international organizations and law in foreign policy making, international cooperation, and competition. Offered occasionally.

PSC 309 INTERNATIONAL POLITICAL ECONOMY

3, 3/0

Prerequisite: PSC 101 or PSC 102. A political analysis of the global economy. Emphasis on learning and using different theories of international political economy to explore contemporary global economic issues such as trade, trade agreements, monetary policies, and the impact of international finance organizations. Offered occasionally.

PSC 310 AMERICAN POLITICAL PARTIES

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. The American party systems: two-party competition and third party challenges; suffrage rules and electoral processes; changing patterns of party organization, nomination, campaigning, and finance; party identification and voter behavior; the role of parties in governing; parties and the future of American politics. Offered spring only.

PSC 312 LEGISLATIVE PROCESS

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. State and national legislatures with emphasis on the determinants of legislative decision making, the committee system, and the policy outputs of the legislative branch. Offered spring and summer only.

PSC 315 STATE AND LOCAL GOVERNMENT AND POLITICS

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. Functions of state and local governments, parties, interest groups, and elections; constitutional and governmental structures; intergovernmental relations; decision making, effects of metropolitanization; contemporary issues and problems; future trends and prospects.

PSC 317 U.S. CONSTITUTIONAL LAW

3, 3/0

Prerequisite: Junior or senior standing or instructor permission. Foundations of American Constitutionalism; judicial review and its use throughout history; the Supreme Court's interaction with Congress, the president, and the states; evolving concepts of federalism; development of governmental regulation of private property and contracts; the evolution of the principles of constitutional due process and equal protection. Offered fall only.

PSC 319 GAY, LESBIAN, BISEXUAL, TRANSGENDER, QUESTIONING POLITICS

3, 3/0

Prerequisite: Prerequisites: PSC 101 or junior or senior standing or instructor permission. This course provides a cross-cultural, longitudinal perspective of U.S. GLBTQ movements and interest-based organizations. It examines queer legal theory, human rights, and constitutional issues surrounding GLBTQ rights. The course considers GLBTQ politics in the context of federalism, with examination of federal legislation such as the Defense of Marriage Act and individual state laws with respect to GLBTQ rights. Offered fall only.

PSC 320 U.S. CIVIL LIBERTIES

3, 3/0

Prerequisite: Junior or senior standing or instructor permission. Legal principles influencing the origin and development of our criminal laws and the way these principles have evolved by court interpretation to accommodate social change and attitudes; the Bill of Rights and due process clause of the United States Constitution. Offered spring only.

PSC 321 CIVIL PROCEDURE

3, 3/0

Prerequisites: Junior or senior standing or instructor permission. Imparts knowledge of, interest in and an appreciation for the civil litigation process in the federal and state court systems of the United States and provides students with a guided tour of the litigation process including but not limited to: pre-complaint actions, subject and personal jurisdiction, complaints and answers, pre-trial motions, discovery, dispositive motions, trial preparation and organization, jury selection and appeal decisions. Offered occasionally.

PSC 323 NEW YORK STATE GOVERNMENT AND BUDGET

3, 3/0

Prerequisite: PSC 102 or ECO 201 or instructor permission. Course covers fiscal federalism, economic climate, NYS budget components and processes, contemporary policy issues, political parties, interest groups, and NYS government institutions. Offered every spring.

Equivalent Course: ECO 323

PSC 327 PRACTICAL POLITICS

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. Classroom and extra-classroom experience and interaction with political practitioners; participation in quasi-political organizing, campaigns and elections, and day-to-day operations of government and politics. Offered occasionally.

PSC 330 AMERICAN FOREIGN POLICY

3, 3/0

Prerequisite: PSC104. Basic ideas that shape American foreign policy; isolationism, domestic and international pressures, cold war, peaceful coexistence and détente, major problems. Offered once a year.

PSC 333 AFRICAN INTERNATIONAL RELATIONS

3, 3/0

Prerequisite: PSC 101 or PSC 104. African international politics vis-à-vis international relations theory, models, and concepts; power; multipolarity; bipolarity; pan-Africanism; North-South debate; approaches to international politics; and state and international organizations as international actors.

Equivalent Course: AAS 333

PSC 335 INTERNATIONAL RELATIONS OF THE MIDDLE EAST

3, 3/0

Prerequisite: PSC 101 or PSC 104. Patterns of interaction within the Middle East and with other states; problems of security and peace in the region; ideology, nationalism, and economic interests as factors influencing the behavior of the states. Offered occasionally.

PSC 337 POLITICS OF GLOBALIZATION

3, 3/0; GA23

Prerequisites: Upper-division status; PSC 101 or PSC 102. Interdependent global political economy; complex process by which governments, corporations, individuals, and information technology are integrated and interconnected on a global scale; costs vs. benefits of globalization. Offered once a year.

PSC 338 POLITICS AND HISTORY OF MODERN TERRORISM I

3, 3/0

Prerequisites: Upper-division status or permission of instructor. Politics and history of terrorism from the French Revolution until the end of the Cold War. The first of a two-part course sequence. Broad definitions of terrorism including tyrannicide, state terror, and counterinsurgency. Narrow definitions do not include state actors. Questions of geopolitical, socioeconomic and cultural causation. Current methodology and empirical research of terrorism. Typology of terrorism including historical analysis of racist, nationalist, anarchist and socialist organizations. Focus on controversies about state response regarding legal rights, proceedings, and immigration. Addressing political, social and cultural issues. Offered annually each fall semester. Offered fall semester.

Equivalent Course: HIS 347

PSC 339 POLITICS AND HISTORY OF MODERN TERRORISM II

3, 3/0

Prerequisites: Upper-division status or permission of instructor. History and politics of terrorism from the Cold War until today. The second of a two-part course sequence. Definitions of terrorism. Questions of geopolitical, socioeconomic and cultural causation. Current methodology and empirical research of terrorism. Typology of terrorism. Focus on controversies about state response regarding legal rights, proceedings, immigration and addressing political, social and cultural issues. Offered annually each spring semester.

Equivalent Course: HIS 348

PSC 340 POLITICS OF DEVELOPING COUNTRIES

3, 3/0; GA23

Prerequisite: PSC 101 or PSC 104. Problems of developing countries, political process, and its relation to societal transformation; the role of the army and bureaucracy in political development; problems of nation-building and democracy in developing countries; and globalization. Offered once a year.

PSC 341 GOVERNMENT, POLITICS, AND POLICIES OF THE EUROPEAN UNION

3, 3/0

Prerequisites: PSC 101 or PSC 102 or PSC 240. Government, politics, and policies of the European Union. Origins and development of European integration, European identity, theories of economic and political integration, treaties and law-making, institutions and decision-making, internal and external policies and policy-making. Offered occasionally.

PSC 344 COMPARATIVE DEMOCRACY

3, 3/0

Prerequisites: Junior or senior standing or instructor permission. Examines the history and development of democracy with strong emphasis on comparing and analyzing various forms of democracy found throughout the Western and Non-Western world in the late 20th and early 21st centuries. Offered occasionally.

PSC 345 POLITICS AND HISTORY OF THE MIDDLE EAST

3, 3/0

Geographic, cultural, and political settings; historical development since the nineteenth century; the disintegration of the Ottoman Empire and Western colonialism; nationalism, independence, and turmoil; Arab-Israeli question; oil and its impact and problems; great power and inter-area politics. Offered occasionally.

Equivalent Course: HIS 313

PSC 350 INTRODUCTION TO LEGAL THOUGHT

3, 3/0

Prerequisites: PSC 102 and upper-division status. Main concepts, theories, and issues of legal thought from the perspective of political science; includes political theories on the nature of law, concepts and independent variables in political legal theory, boundaries to political choice, and issues of social and political justice.

PSC 351 HISTORY OF POLITICAL THOUGHT I

3, 3/0; GA23

Prerequisite: Junior or senior standing or instructor permission. Main problems of political theory examined through the writings of major political thinkers from Plato to Aquinas. Offered fall only.

PSC 352 HISTORY OF POLITICAL THOUGHT II

3, 3/0; GA23

Prerequisite: Junior or senior standing or instructor permission. Main problems of political theory examined through the writings of major political thinkers from Machiavelli to Rawls. Offered spring only.

PSC 355 AMERICAN POLITICAL THOUGHT

3, 3/0

Prerequisite: Junior or senior standing or instructor permission. American political thought from colonial to contemporary time; the development of persistent political values and beliefs, how interpretations and applications of these values and beliefs have changed through different periods; the roots of contemporary American political culture and ideology.

PSC 360 PUBLIC ADMINISTRATION

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. Introduction to public administration: analysis of government administration in its social, economic, and political settings; the role of public administration in formulating public policy; organization and management in public services; personnel and financial management. Offered fall only.

Equivalent Course: PAD 360

PSC 364 AMERICAN PUBLIC POLICY

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. Governmental policy with emphasis on the sources of policy, the policy-making process in national political institutions, and the social impact of policy choices. Offered fall only.

PSC 368 COMPARATIVE PUBLIC ADMINISTRATION

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. Introduction to cross-cultural, cross-national, or cross-institutional study of public administration institutions and practices; the administrative systems of European countries and the processes of administrative change in developing countries; the evolution of bureaucracy. Offered spring only.

Equivalent Course: PAD 368

PSC 375 RACE, SEX, AND POLITICS OF MYTH AND STORY

3, 3/0

Prerequisites: Junior or senior standing or instructor permission. The institutional and human force of story in race/sex/politics; legitimizing myths of the U.S. political system; limits to the achievement of consensus in group values and politics; standpoints of race/sex/political privilege and disadvantage; difficulties posed to the regime by the refusal of consent; and the transformation and assumption by citizens of self-government. Offered spring only.

PSC 389 TOPICS IN POLITICAL SCIENCE

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. In-depth study of current issues of substantial political significance, such as: public personnel administration, defense policy, computers and political science, environmental policy, political communication, health policy, and human rights. Offered occasionally.

PSC 390 THE ITALIAN-AMERICAN EXPERIENCE: POLITICS, SOCIETY, & IDENTITY

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. Examination of the experience of Italians in the United States from an interdisciplinary perspective beginning with the peak years of emigration (1870-1920) including the culture, society, economy, and government of Italy (push factors) and the promise of America (pull factors). Identity, citizenship, worldview, family structure, expressive culture, politics, economics, crime, and social relations in the Italian-American community.

PSC 398 LEGAL RESEARCH AND WRITING

3, 3/0

Prerequisites: CWP 102; PSC 250, or Instructor Permission. An introduction to the rules and techniques of legal research and writing. Discovering through electronic and bound legal sources law and applying it to specific legal situations. Students will then communicate their results through generally accepted legal techniques: oral presentation, the legal memo, the legal brief.

PSC 399 RESEARCH SKILLS

3, 3/0; IN23, RE23

Prerequisites: PSC 204 and junior or senior standing; or instructor permission. Preparation to study selected topics in political science through in-depth research and for written and oral presentation of research findings. Offered every semester.

PSC 410 POLITICAL BEHAVIOR AND PUBLIC OPINION

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. Conditions of democratic political behavior, opinion formulation in democratic systems, voting behavior and party affiliation in the United States, mass political behavior and governmental institutions, mass political behavior in selected western European societies. Offered occasionally.

PSC 415 URBAN PUBLIC POLICY

3, 3/0

Prerequisites: PSC 101 or junior or senior standing or instructor permission. Urban problems and government policy responses to them; economic development, poverty, and crime; roles of all levels of government; policy analysis. Offered occasionally.

PSC 420 CONTEMPORARY CONSTITUTIONAL ISSUES

3, 3/0

Prerequisite: Junior or senior standing or instructor permission. Recent developments in American constitutional law; comparison of the Warren, Burger, Rehnquist, and Roberts courts; First Amendment liberties and rights; the rights of the accused and criminal due process; equal protection and African Americans; reapportionment and representation; the president and national security. Offered occasionally.

PSC 421 DISCRIMINATION AND THE U.S. CONSTITUTION

3, 3/0

Prerequisite: Junior or senior standing or instructor permission. The role the equal protection clause plays in prohibiting and allowing discrimination in the United States. The development of equal protection jurisprudence throughout the past century and a half. The reach and potentialities of equal protection analysis: fundamental rights, suspect classes, expansion and retrenchment. Offered occasionally.

PSC 426 MEDIATION

3, 3/0

Prerequisite: Instructor permission. Detailed examination of mediation theory and practice; the role of the mediator; the types of disputes most suited for mediation; the place of mediation in the American legal landscape; survey of other forms of alternative dispute resolution, challenges and controversies concerning their use. Offered occasionally.

PSC 430 UN AND GLOBAL AFFAIRS

3, 3/0

Prerequisite: PSC 104 or instructor permission. Provides an overview of the United Nations, including history, structure, objectives, and politics. Students learn practical skills by participating in Model UN simulations and conducting independent research on the UN. Offered spring only.

PSC 450 CONTEMPORARY POLITICAL THOUGHT

3, 3/0

Prerequisite: Junior or senior standing or instructor permission. Central problems of political philosophy (such as equality, freedom, justice, and political obligation) as discussed by contemporary philosophers. Offered occasionally.

PSC 470 SENIOR SEMINAR

3, 3/0

Prerequisites: PSC 203, PSC 204, PSC 399; and junior or senior standing and instructor permission. Selected topics in political science examined and analyzed in depth. Offered spring only.

PSC 485 MOCK TRIAL

1-3, 1/0

Prerequisite: Junior or senior standing or permission of instructor. Simulation of a trial court or appellate court proceeding involving teams of students acting as prosecutors'/plaintiffs' attorneys, defense attorneys, and witnesses. Students develop case strategy, analyze evidence, integrate legal precedent, prepare a written brief, question witnesses, and present oral arguments to the court in opening and closing statements. Final project is a mock trial presentation held in a formal courtroom setting. Offered every semester. Equivalent Courses: CRJ 485, SOC 485

PSC 488 INTERNSHIP

1-15, 0/0

Prerequisites: PSC 203, PSC 204, PSC 399; and junior or senior standing and instructor permission. Field experiences that supplement departmental academic offerings; geared to students' interests. Faculty intern supervisor and department chair permission necessary. Offered every semester and summer.

PSC 495 SPECIAL PROJECT

3, 0/0

Prerequisites: Junior or senior standing or instructor permission.

PSC 497 WASHINGTON SEMESTER

1-16, 0/0

Prerequisites: Junior or senior standing or instructor permission. State University of New York's Washington semester program. Class work, seminars, and internship work; selection based on college-wide competition; contact Political Science Department chair for information and application forms. Offered every semester and summer.

PSC 499 INDEPENDENT STUDY

1-12, 0/0

Prerequisites: Junior or senior standing or instructor permission.

History (HIS, SSE)

History (HIS)

HIS 106 HISTORY OF AMERICAN LIFE I

3, 3/0; AH23

Exploration and colonization: the meeting of cultures; colonial America; shaping an identity; contest for the continent; prologue to independence; independence and the new nation; framing a constitution; religious, ethnic, and cultural diversity in the new nation; Jeffersonian Republicanism; nationalism and economic expansion; the emergence of social strains; Jacksonian democracy; religion and reform; expansion and sectional crisis; American life and culture in the mid-nineteenth century; a decade of crisis; the Civil War; aftermath of war. Offered every semester.

HIS 107 HISTORY OF AMERICAN LIFE II

3, 3/0; AH23

The new South; reunion, readjustment, and constitutional freedoms; the West; the economic revolution; the urban society; politics in the Gilded Age; America's emergence as a world power; the Progressive Era; World War I and its aftermath; the 1920s; the New Deal; from isolationism to globalism; World War II; postwar adjustments; the Kennedy and Johnson years; resurgent Republicanism. Offered every semester.

HIS 110 HISTORY AND IDEAS

3, 3/0

Examination of selected problems in an historical frame of reference; emphasis on techniques of critical analysis, writing, and class discussion. Designed for freshmen and sophomores without previous college level history courses.

HIS 115 FOUNDATIONS OF WESTERN CIVILIZATION

3, 3/0; GA23

Major contributions of the Greek, Roman, and medieval civilizations to the creation of Western heritage in philosophy, art, literature, science, political structure, economy, and law. Offered every semester.

HIS 116 EUROPE SINCE 1500

3, 3/0; GA23

Growing concern of man and his relation to his world. Development of nationalism. The concepts of freedom and democracy. Increasing attention to the spirit of inquiry. Scientific development and technology and their impact on society. The formulation of fascism, communism, socialism, and the concern for political ideology. Offered every semester.

HIS 117 TWENTIETH-CENTURY EUROPE

3, 3/0; GA23

Political, social, cultural, and intellectual history of twentieth-century Europe. Factors contributing to World War I. The Versailles settlement. The Russian Revolution and the rise of communism. Collapse of collective security and the rise of fascism and national socialism. Western democracies between the wars. The road to World War II. Restoration of the Atlantic Community. The challenge of the nuclear age. Offered every semester.

HIS 120 HISTORY OF AMERICAN URBAN TECHNOLOGY

3, 3/0

Development and interaction of technology and urban America, from Indian villages and colonial towns to high technology reindustrialization. American Indian and European traditions, early urban production and planning, industrialism and infrastructure, electricity's impact, reforms in housing and health, leisure and consumption technology, and technology as a competitive factor in national and international urban development. Offered occasionally.

HIS 121 INTRODUCTION TO JEWISH HISTORY

3, 0/0

Introduction to Jewish history and historiography. The ancient Near East; the Bible as history; Moses and the prophets; daily life in Bible times; Jesus and the rise of Pauline Christianity; the fall of the Jewish state; Jesus in exile.

HIS 189 TOPICS COURSE

1-9, 1/0

Offered occasionally.

HIS 201 THE AGE OF DISCOVERY

3, 3/0

Classical and medieval background of the Age of Discovery; myth and reality of cosmography at the beginning of the Great Age of Discovery; early travelers; technological innovation; economic, social and cultural forces supporting discovery and exploration; Portuguese, Spanish, French, and English voyages; impact of discovery on economic, literary, artistic, and cultural conditions; New World on the eve of the period of colonization.

HIS 204 GLOBAL HISTORY OF THE TWENTIETH CENTURY

3, 3/0

The history of the twentieth century, emphasizing the interrelationship of events and interaction of movements and ideas within a global context. Offered occasionally.

HIS 210 HISTORY OF MODERN ASIA

3, 3/0

China, Japan, and Southeast Asia in modern times. Rise of nationalism, internal social and political conflict, response to Western powers. Impact of ideology and totalitarianism. Industry and technology. Problems of international wars. Offered occasionally.

HIS 230 WORLD CIVILIZATIONS I

3, 3/0; GA23

Origins, cultural achievements, and interrelationships of the various civilizations of the world to approximately 1500 C.E. Topics include the prehistoric era and the origins of human civilization; civilizations of the ancient Near East; early civilizations of Africa and the Americas; East Asian culture and civilization; Indian (South Asian) culture and civilization; Greek and Roman civilization; early civilizations of Southeast Asia; Islamic civilization; the Byzantine empire and medieval Europe. Offered occasionally.

HIS 231 WORLD CIVILIZATIONS II

3, 3/0; GA23

Origins, cultural achievements, and interrelationships of the various civilizations of the world from approximately 1500 to 1914 (World War I). Topics include European culture and civilization from the Renaissance to World War I; Islamic civilization in Asia and the Middle East; East Asian culture and civilization in the late traditional era; African culture and politics in an era of European hegemony; colonial Latin American and the independent states of the postcolonial era; the U.S. and Canada; Western imperialism and global interactions in the modern era. Offered occasionally.

HIS 260 THE TURBULENT SIXTIES

3, 0/0

Survey of the major events and trends of the 1960s. Major emphasis given to the Civil Rights movement, the events related to and the reactions to the Vietnam war, the counter-culture, and the social and intellectual movements of the decade.

HIS 300 RESEARCH AND WRITING SEMINAR

3, 3/0; IN23, RE23

Prerequisites: CWP 101 and CWP 102. History and social studies education majors only. In-depth instruction on the historical methods of research and writing according to the standards of the profession. Students research, analyze, and interpret historical materials; provide documentation; and communicate lucidly and effectively in writing. Should be taken before enrolling in other upper-division history courses. Offered every semester.

HIS 301 COUNTER CULTURE/UTOPIAS

3, 3/0

Uses of utopias; biblical, classical, and medieval background; famous Renaissance utopias; European utopian focus on America in the 16th and 17th centuries; religious utopias; famous 19th century utopias, 20th century utopias; intentional communes; analysis of successful and unsuccessful utopias; utopian art and literature; the utopian vision.

HIS 302 HISTORY OF WOMEN IN AMERICA

3, 3/0

The impact of women on American development from colonial times to the present. Effects of history on the roles and status of women. Changes in women's role in the family, economic contributions, legal status, struggle for equal rights. Women and demographic changes. Developing perceptions of women about society. Political growth and women. Society's regard for women in a historical context and the differences and/or similarities between women from various ethnic, racial, religious, and socioeconomic groups. Offered occasionally.

HIS 303 THE CITY IN AMERICAN HISTORY

3, 3/0

Historical background; colonial period; formation of a new nation; towns in westward expansion; industrialization; political machines; municipal reform; the city in American thought; twentieth century developments; the contemporary scene.

HIS 304 EUROPE FROM NAPOLEON TO THE FIRST WORLD WAR

3, 3/0

Major influences in nineteenth-century Europe; nationalism, imperialism, Industrial Revolution, democracy, and socialism; causes of World War I. Offered occasionally.

HIS 306 AFRICA TO 1800

3, 3/0; GA23

Prerequisite: Upper-division status or instructor permission. African history from the Paleolithic period to 1800. Development of agriculture, ancient civilizations of Africa, iron working societies, the trans-Saharan trade, the impact of Islam and Christianity, traditional African political and social arrangements, the slave trade, and the European presence in early modern Africa. Offered occasionally.

Equivalent Course: AAS 306

HIS 307 HISTORY OF INDIA

3, 3/0

Prerequisite: Upper-division status. The history of India from ancient times to the present. Topics include the early Indus civilizations; religion and society in the Aryan age; the birth of Buddhism; Ashoka and the Mauryan Empire; classical Hinduism; Gupta civilization; the impact of Islam; the Mughal Empire; the era of British colonialism; the emergence of modern nationalism; independent India, Pakistan, and Bangladesh. Offered occasionally.

HIS 308 HISTORY OF EARLY CANADA

3, 3/0

The early history of Canada, from before the commencement of European exploration to the end of World War I Confederation in 1867. Topics include cultural and religious heritage of Canada's native peoples, histories of New France and British North America, the fight for responsible government and Canadian confederation. Offered occasionally.

HIS 309 AMERICAN LEADERS

3, 3/0

Selected leaders in critical periods or areas of American civilization, such as Benjamin Franklin and revolutionary America; John Marshall and federal power; Booker T. Washington and W. E. B. DuBois; contrasting black leaders; Lincoln Steffens and the muckrakers; Henry Ford and mass production. Offered occasionally.

HIS 310 HISTORY OF EAST ASIA: THE TRADITIONAL ERA

3, 3/0

Prerequisite: Upper-division status. China, Korea, and Japan before the coming of the West. Traditional cultures, geography, political and religious institutions. Impact of Western ideas and colonialism. Offered occasionally.

HIS 311 AMERICAN IMMIGRATION AND EMIGRATION

3, 3/0

Immigration and ethnicity from the colonial period to the present. World population movements, shifts in governmental immigration policy, the changing meaning of ethnicity and race, and its impact on the immigrant experience. How and why immigrants came, degree of assimilation and alienation, work and leisure experiences, demographics, coping mechanisms, transmission of cultural traditions, and generational differences. Offered occasionally.

HIS 312 HISTORY OF ITALY

3, 3/0

Classical and medieval foundation. Renaissance Italy. Prelude to unification. Italian nationalism, liberalism, and socialism. Italy under fascism. The Italian Republic, accomplishments and problems. Offered occasionally.

HIS 313 POLITICS AND HISTORY OF THE MIDDLE EAST

3, 3/0

Political culture and geographic settings. Historical development since the French invasion of Egypt. The disintegration of the Ottoman Empire and the rise of Western colonialism. Nationalist movements, independence, and turmoil. Post-World War II political evolution. Diversity and problems. Emphasis on the region's key industries. Offered occasionally.

Equivalent Course: PSC 345

HIS 314 MODERN LATIN AMERICA

3, 3/0

Movements for independence; early political apprenticeship; age of dictators; nationalism and national development; Hispanic-American interrelations; growth of inter-American system; Latin America in world politics; revolution of rising expectations, guerrilla movements, turmoil in Central America; contemporary problems. Offered occasionally.

HIS 315 HISTORY OF CLASSICAL AND MEDIEVAL THOUGHT

3, 3/0

Early Western intellectual tradition and the interaction of various modes and traditions of intellectual discourse (music, literature, history, philosophy, natural science) and their impact. Dynamics of cultural development and the influences that have shaped Western civilization. Offered occasionally.

HIS 316 HISTORY OF MODERN CANADA

3, 3/0

The history of Canada since Confederation in 1867. Topics include Canadian political and social history in the modern age, Canada's foreign policy since Confederation, Canada-U.S. relations, Quebec nationalism, twentieth-century Canadian cities, multiculturalism in modern Canada. Offered occasionally.

HIS 317 HISTORY OF RUSSIA TO 1917

3, 3/0

Social, political, and economic history of Russia from the Varangians state to the October 1917 Revolution. Effects of geographic locations. The Mongol conquest. Retarded reorientation toward the West in the eighteenth and nineteenth centuries. Participation in world politics. Expansion in Europe and in the East. Participation in World War I. Offered occasionally.

HIS 318 HISTORY OF THE FORMER SOVIET UNION

3, 3/0

Economic and historical forces behind the Communist Revolution of 1917. The governmental system and its political, social, and economic theories. The evolving economic system. Soviet foreign policy, impact of the Revolution, and World War II. The church, educational systems, and other cultural developments. Offered occasionally.

HIS 319 COLONIAL HISTORY OF THE AMERICAN PEOPLE

3, 3/0

Establishment and development of English, Spanish, French, Dutch, and Swedish colonies in North America. American Revolutionary period. Colonial influence on early culture and institutions of the United States. Subsequent contributions to the American heritage. Offered occasionally.

HIS 320 MODERN HISTORY OF JAPAN AND KOREA

3, 3/0

Prerequisites: Upper-division status or permission of instructor. History of Japan and Korea from the premodern era to the present. Topics include Tokugawa Japan; the Meiji Restoration; the Meiji state and the rise of Japanese imperialism; Japan and World War II; economic and political developments in postwar Japan; late Yi (Choson) dynasty Korea; the era of Japanese colonialism in Korea; the emergence of modern Korean nationalism; the Korean War; and postwar developments in North and South Korea. Offered occasionally.

HIS 321 HISTORY OF MEDIEVAL EUROPE

3, 3/0

Transition from Graeco-Roman to medieval civilization; Islam, Charlemagne, and feudal Europe; crusades; cultural, economic, and political revival of the twelfth-century medieval church and papacy; medieval intellectual synthesis; rise of monarchies, decline of papacy; decline of medieval civilization. Offered occasionally.

HIS 322 AFRICAN AMERICAN HISTORY

3, 3/0

Heritage of black Americans. African Americans' existence under slavery; their role in influencing historical events; activity in the Civil War period; freed men during reconstruction; migrations to the north and adjustment to urban life. African American leaders, institutions, and ideas, and their impact on modern America. Offered occasionally.

Equivalent Course: AAS 322

HIS 323 CLASSICAL GREECE AND ROME

3, 3/0

Origins and development of ancient Greece, the Hellenistic world, and the Roman republic and empire. Emergence and growth of major cities, the evolution of social and political institutions, trade and economic development, technological innovation; philosophy and religion. Offered occasionally.

HIS 324 AMERICAN PRESIDENTS

3, 3/0

Biographical approach to the study of the presidency from Washington to the current era. Background and evolution of the office, and the roles of the best and worst presidents in shaping its powers. Offered occasionally.

HIS 325 U.S. BUSINESS HISTORY

3, 3/0

The history of U.S. business and its societal and cultural contexts. Businessmen within mercantilism; merchants and craftsmen in the early republic; business and government action in the North and South; industrialization; rise of corporations and antitrust; business, government, and science; managerial style; advertising; the multinational; Rust Belt and Sun Belt; high tech society.

HIS 326 HISTORY OF THE GREAT LAKES REGION

3, 3/0

The history of the Great Lakes. Introduction to the variety of natural, social, and political factors that have shaped the region. Offered occasionally.

HIS 327 COLONIAL LATIN AMERICA

3, 3/0

Encounter between Europe and the New World; establishment of the political, social, cultural, and religious institutions of the Spanish and Portuguese in the Americas between 1492 and 1824. Role of the church, economic institutions, women, slaves, and Indians in further understanding the cultural and political heritage of the region. Offered occasionally.

HIS 328 HISTORY OF POLAND

3, 3/0

Prerequisites: upper-division status. Major Polish historical and cultural achievements from 966 to the present. The growth and development of the nation and the state. Scientific, cultural and religious forces in Polish life. The interaction of Poland with neighboring states and cultures, and Poland's role in world affairs. Offered occasionally.

HIS 330 U.S. ENVIRONMENTAL HISTORY

3, 3/0

The impact of Americans on their natural environment. The influence of the natural and developing social environment on Americans in the past. Aborigines and the earliest settlers. Establishment of patterns and institutions. Preservationists vs. conservationists, 1860-1940. The modern environmental movement, 1940-present. Offered occasionally.

HIS 331 AMERICAN WESTWARD EXPANSION

3, 3/0

The gradual westward migration of Americans; their patterns of migration and settlement; the natural environment and peoples encountered; the influence of the frontier on the development of American institutions, thought, and the American personality. Offered occasionally.

HIS 332 TECHNOLOGY AND U.S. HISTORY

3, 3/0

Interaction of U.S. society with technology in the past, concentrating on the last 200 years. Background of Western technology; the agricultural revolution; industrial technology; technology and culture, labor, the home, medicine, government; postindustrial technology. Offered occasionally.

HIS 334 MODERN IRELAND SINCE 1800

3, 3/0

Major factors that shaped Irish history in the nineteenth and twentieth centuries: the impact of the union with Britain; the struggle for Catholic emancipation; the Great Famine and its aftermath; revolutionary movements like Young Ireland, the Fenians, and Sinn Féin; cultural revival and religion in Victorian Ireland. Also the question of home rule and independence, the growth of the free state and the establishment of the Northern Ireland state, Ireland in World War II, and the emergence of contemporary Ireland in the context of the European economic community. Offered occasionally.

HIS 335 HISTORY OF MEXICO

3, 3/0

Pre-Colombian Indian cultures, Spanish conquest of Mexico, Spanish colonial administration in the Viceroyalty of New Spain, the Enlightenment and Mexican independence, Early National period, the Mexican Revolution of 1910, Mexico today. Offered occasionally.

HIS 336 HISTORY OF EARLY MODERN IRELAND

3, 3/0

A focus on the political, economic, and social histories of Ireland in the Early Modern period, ca.1485-1800. An overview of the development of the Irish state, its constituent communities, and relations with England and the British mainland up to the union of 1800. Emphasis is placed on what it meant to "be Irish" in the Early Modern period, and how varying definitions of "Irishness" have

affected Ireland's cultural and political history. Reading primary sources and leading and participating in discussions are emphasized. Offered occasionally.

HIS 337 AFRICA SINCE 1800

3, 3/0; GA23

African history since 1800. Abolition of the slave trade, pre-colonial culture and society, partition of Africa by European nations, impact of colonial regimes, African resistance movements, colonial nationalism, world wars and decolonization, Apartheid in South Africa, impact of the Cold War, and neo-colonialism. Offered occasionally.

Equivalent Course: AAS 337

HIS 338 MODERN HISTORY OF CHINA

3, 3/0

Prerequisite: Upper-division status. The history of China from the rise of the last imperial dynasty (Qing) in the mid-seventeenth century to the present. Topics include the fall of the Ming dynasty and the Manchu conquest of China, the Chinese state and society under the Qing dynasty, the development of relations between China and the West, the decline of the Qing imperial order, the emergence of modern nationalism and the rise of the Chinese Communist Party, Japanese imperialism and World War II, and the establishment of the People's Republic of China. Offered occasionally.

HIS 339 HISTORY AND CULTURE OF PUERTO RICO

3, 3/0

Prerequisites: Upper-division status or permission of instructor. Over 500 years of Puerto Rico's history, culture, people, resources, ethnicity, socio-economic, and socio-political development prior to, during, and after colonization, including the relationship between Puerto Rico and the United States. Optional capstone travel to Puerto Rico will include lectures, guided tours, and firsthand experiences complementing the classroom experience. Offered every other spring semester.

HIS 340 HISTORY OF THE BUFFALO NIAGARA REGION

3, 3/0

The nature of the city, its growth, the dynamics of urban development, the enduring impact of its historical past in relation to its geographical presence. A case study of Buffalo. Offered occasionally.

HIS 341 AFRICAN AMERICANS AND CIVIL RIGHTS

3, 3/0

History of the landmark court decisions, laws, and governmental policies regarding the civil rights of African Americans. The course examines some of the historic relationships among race, racism, law, and public policy in America. Focuses on resistance, protest, and the quest for equality in America. Offered occasionally.

Equivalent Course: AAS 341

HIS 342 ENGLISH LEGAL HISTORY

3, 3/0

Origins of English law to 1066, growth of medieval common law, common law and its rivals in sixteenth and seventeenth centuries, consolidation and reform of law and courts, relation of law and equity, criminal and civil jurisdiction and procedure, the legal profession, changing legal concepts and the modern state. Offered occasionally.

HIS 343 INTRODUCTION TO AMERICAN LEGAL HISTORY

3, 3/0

Origins of ideas of law; English background of American law; colonial legal history; Puritanism, law, and social goals; revolution; criminal and civil jurisdiction and procedure; 19th century codification movements; nationalism and the law; industrialization; corporations, legal profession, social change, and the law in the 19th and 20th centuries.

HIS 344 EMERGENCE OF INDUSTRIAL AMERICA: 1877 to 1919

3, 3/0

Conservative reaction to reconstruction, decline of the presidency, the triumph of capitalism and industry, populist protest, the end of westward movement, socialization of immigrants, progressive impulse and leadership, rural vs. urban conflict, the United States and the race for empire, and the role of America in World War I. Offered occasionally.

HIS 345 HISTORY OF THE UNITED STATES SINCE 1941

3, 3/0

Political, diplomatic, social, and cultural history of contemporary America; World War II and the advent of the nuclear age; the Cold War and the policy of containment; the Korean War, McCarthyism, and domestic reform; the New Frontier and the Great Society; civil rights, civil disobedience, and the greening of America; war and peace in Southeast Asia; Watergate and the travail of liberalism. Offered occasionally.

HIS 347 POLITICS AND HISTORY OF MODERN TERRORISM I

3, 3/0

Prerequisites: Upper-division status or permission of instructor. Politics and history of terrorism from the French Revolution until the end of the Cold War. The first of a two-part course sequence. Broad definitions of terrorism including tyrannicide, state terror, and counterinsurgency. Narrow definitions do not include state actors. Questions of geopolitical, socioeconomic and cultural causation. Current methodology and empirical research of terrorism. Typology of terrorism including historical analysis of racist, nationalist, anarchist and socialist organizations. Focus on controversies about state response regarding legal rights, proceedings, and immigration. Addressing political, social and cultural issues. Offered annually each fall semester. Offered annually each fall semester. Equivalent Course: PSC 338

HIS 348 POLITICS AND HISTORY OF MODERN TERRORISM II

3, 3/0

Prerequisites: Upper-division status or permission of instructor. History and politics of terrorism from the Cold War until today. The second of a two-part course sequence. Definitions of terrorism. Questions of geopolitical, socioeconomic and cultural causation. Current methodology and empirical research of terrorism. Typology of terrorism. Focus on controversies about state response regarding legal rights, proceedings, immigration and addressing political, social and cultural issues. Offered annually each spring semester.

Equivalent Course: PSC 339

HIS 350 FRENCH REVOLUTION TO FASCISM 1789-1933

3, 3/0

The evolution of Marxist, anarchist, state socialist, and right radical ideologies in European thought and politics. Offered occasionally.

HIS 351 MODERN FRANCE

3, 3/0

Selected problems in French political, social, economic, and diplomatic history emphasizing historiography and interpretation of such periods as the restored monarch, the revolution of 1848, the Second Empire, the Third Republic, and its successors. Offered occasionally.

HIS 353 THE EARLY CARIBBEAN

3, 3/0

Prerequisites: CWP 102. An introduction to the first three centuries of written history in the Caribbean from Europeans' first contact with the region's indigenous societies to the flourishing of the late eighteenth-century sugar colonies of Saint Domingue and Jamaica. Topics will include: indigenous societies; the first encounters between Europeans and the indigenous; trade, contraband, and piracy; the development of the transatlantic slave trade and the plantation complex; centuries-long conflict between Caribs and Europeans; revolts, rebellions, and disaster. Offered every other year.

HIS 354 THE MODERN CARIBBEAN

3, 3/0

Prerequisite: CWP 102 or equivalent. Introduction to the conundrums of freedom, independence, and sovereignty as experienced in the modern Caribbean. Topics will include the Haitian Revolution; abolitionism and emancipation; labor conflicts between freedpeople and planters; race, religion, and imperialism; American expansionism and occupation; decolonization, departmentalization, and independence; globalization and nonsovereignty; contemporary politics and society.

Equivalent Course: AAS 354

HIS 355 HISTORY AND CULTURE OF ARGENTINA

3, 3/0

History of Argentina from the time of colonial rule until the return of democracy in the 1980s. Cultural foundations of the nation; role of gauchos and caudillos; challenges of nation building in the nineteenth century. Rise and endurance of Peronism in Argentine politics. Military dictatorships of the 1970s and 1980s; transition to democracy in 1983. Offered occasionally.

HIS 356 WORLD WAR I

3, 3/0

The causes, conduct, and implications of the First World War. Through a thematic and narrative treatment, students will study the war and its implications for global society in the twentieth century and beyond. Offered occasionally.

HIS 357 WORLD WAR II

3, 3/0

The issues that led to the outbreak of the Second World War and its global dimensions. Campaigns, theaters of operations, as well as the process of decision making by Allied and Axis Powers. Also, the social dimensions of the war: experiences on the home fronts, the Holocaust, and the impact of the war on the modern world. Offered occasionally.

HIS 358 HISTORY AND CULTURE OF PARAGUAY

3, 3/0

Prerequisites: Upper class standing. Paraguay's pre-contact cultures and societies, isolated colonial era, the dramatic War of the Triple Alliance, the Chaco War, securing the vast Chaco region and the longest dictatorship in the hemisphere of Alfredo Stroessner. Offered occasionally.

HIS 359 GERMANY AND CENTRAL EUROPE, 1618-1918

3, 3/0

History of Central Europe from the Thirty Years' War to the twentieth century. Political and cultural development of the modern German nation-state from nationalist dream to the Second Reich in the nineteenth century. Offered occasionally.

HIS 360 GERMANY AND HITLER

3, 3/0

Political, cultural, and social developments since the Reformation; Prussian kings and German emperors; nationalism and unification; Hitler's Austria; World War I; the challenge of democracy; the Nazi dictatorship; World War II; Germany after Hitler. Offered occasionally.

HIS 361 HISTORY AND CULTURE OF BRAZIL

3, 3/0

Prerequisites: Upper class standing. Brazil's Indigenous population and culture before Columbus. How Europeans, Africans and Indigenous populations experienced colonialism, Empire and republicanism. Brazil evolves from an exporter of primary commodities to industrialization. Women and minorities' struggles for political equality and economic survival. How Brazil became a global powerhouse in the 21st century. Offered occasionally.

HIS 362 THE WAR OF 1812

3, 3/0

Prerequisites: upper-division status. The causes, conduct and implications of the War of 1812. Thematic and narrative treatment of the war and its implications for the history of North America in the 19th century and beyond; the emergence of the United States as a hemispheric power; the future of Canada-US relations. The war as an aspect of 19th century British imperial history; impact on North American Indigenous Peoples. Offered occasionally.

HIS 363 AMERICAN IDENTITY IN TRANSITION: DIVERSITY AND PLURALISM IN THE UNITED STATES

3, 3/0

The diverse, pluralistic makeup of American society. The roots of pluralism and what it means for the daily experience of living in America. Themes of diversity are explored through history and literature. Focuses on the activities of four major underrepresented groups in their struggle for liberation: African Americans, Native Americans, Latinos, and Asians. Encourages a multicultural view of America. Offered occasionally.

Equivalent Course: SSE 363

HIS 365 AMERICAN LABOR HISTORY

3, 3/0

Readings and bibliography on the role of workers in American life. Slaves, indentured servants, wage earners, and craftsmen. The rise of organized labor from colonial times. The history of the Knights of Labor, the American Federation of Labor, the Congress of Industrial Organizations, and independent unions, with related issues of immigration, radicalism and political action, and contemporary labor problems. Offered occasionally.

HIS 366 MEDIEVAL AND EARLY MODERN BRITAIN

3, 3/0

The development of English and Scottish political identities prior to their union, and the eventual formation of the British state in 1707. Also, considerations of the roles of the church, family life, social structure, culture, economics, immigration, and war as facets of these formative periods. Offered occasionally.

HIS 367 MODERN BRITAIN

3, 3/0

The modern history of the British Isles, from the Act of Union of 1707 to the end of the twentieth century. Considerations of the roles of the church, family life, social structure, culture, economics, immigration, industrialism, imperialism, and war as facets of these formative periods. Offered occasionally.

HIS 370 AMERICAN DIPLOMATIC HISTORY TO 1898

3, 3/0

Independence from Britain and alliance with France; the Constitution and the formation of foreign policies; neutral rights and war with Britain; rise of manifest destiny, commercial and territorial expansion, diplomacy of slavery and the Civil War; diplomacy and isolationism in the post-Civil War period. Offered occasionally.

HIS 371 AMERICAN DIPLOMATIC HISTORY SINCE 1898

3, 3/0

War with Spain and the rise to world power; inter-American and Far Eastern relations; diplomacy of World War I; retreat to isolationism; road to World War II; global war and its aftermath; leadership in the United Nations and the Cold War; inter-American and Far Eastern affairs. Offered occasionally.

HIS 372 AMERICAN FOREIGN POLICY IN THE FAR EAST

3, 3/0

Dawn of America's Asiatic interests; early relations with China; opening of Japan; missionary activity and influence; war with Spain; America becomes a Pacific power; World War I and the rise of Chinese nationalism; American gunboat diplomacy; interwar naval conferences; Manchurian Incident; American-Japanese problems; road to war; Pearl Harbor and war in the Pacific; search for Pacific security; conflict in Korea; war and peace in Vietnam. Offered occasionally.

HIS 373 VIETNAM AND THE VIETNAM WAR

3, 3/0

Introduction to the major issues associated with the history of Vietnam and modern Vietnam's wars with France and the United States. Origins and historical development of Vietnamese society and culture; French colonialism and the emergence of modern Vietnamese nationalism; Vietnamese communism under Ho Chi Minh; the Franco-Vietminh War; the American war in Vietnam; and postwar reunification and consolidation under the Vietnamese Communist Party. Offered occasionally.

HIS 375 HISTORY OF BYZANTINE EUROPE

3, 3/0

The history of the Byzantine Empire. Its influence on intellectual and cultural progress in Western Europe and among the Eastern and Balkan Slavs with special emphasis on internal, social, economic, political, and cultural developments. Offered occasionally.

HIS 379 MUSEUM AND CIVIC ENGAGEMENT

3, 3/0

In-depth study of how museums and cultural agencies define community identity. Internal operations of museums and cultural agencies. Minimum 20 hours in-service (fieldwork) activity required, with 15 percent of the grade dependent upon the resulting learning from that service. Offered occasionally.

Equivalent Course: MST 379

HIS 380 INTRODUCTION TO THE MUSEUM

3, 3/0

History, theory, and practices of the historical agency or museum. Extensive reading, illustrated lectures, and exercises in museum and historical-agency problems. Field trips to area museums and agencies. Offered occasionally.

HIS 381 THE ROLE OF THE HISTORY MUSEUM

3, 3/0

Theory and practice of historical investigation and publication. Uses and procedures of research in historical museums and agencies. Evaluation of source materials. Preparation of historical essays and exhibits. Offered occasionally.

HIS 382 HISTORY OF CHRISTIANITY TO 1500

3, 3/0

Prerequisites: junior or senior status. Christianity in the East and the West from its origins to the dawning of the modern age. Development of Christianity, the Apostolic Era, the Patristic Era; Byzantine and medieval Latin Christianity until the fall of Constantinople and the Protestant Reformation. Political, intellectual and cultural significance of Christianity in world civilizations. Offered occasionally.

HIS 383 HISTORY OF CHRISTIANITY FROM 1500 - PRESENT

3, 3/0

Prerequisites: junior or senior status. Developments in Christianity in the Modern World from the collapse of the Byzantine Empire in the East and from the Protestant Reformation in the West through the twenty-first century. Challenges of Christianity with respect to the Scientific Revolution, the Enlightenment, liberalism, nationalism, socialism, capitalism and the Industrial Revolution, secularism, consumerism, and globalization. Offered occasionally.

HIS 385 AZTEC AND MAYA HISTORY

3, 3/0

The history of the Aztec and Maya empires in Mexico and Central America before and during the Spanish conquest. The political, economic, and religious motivations for empire building among indigenous cultures. Construction of rulership; Aztec and Maya historiography; systems of trade and tribute; imperial expansion; war and sacrifice; encounter with the Spanish. Offered occasionally.

HIS 386 HISTORY OF THE INCA EMPIRE

3, 3/0

The last great empire of the ancient Americans to fall under Spanish dominance, the Inca of Peru. The political, social, and economic functions of the Inca State. The foundations of the empire in earlier civilizations of the Andes. Inca system of governance; strategies for expansion and consolidation of empire; the importance of recordkeeping and the counting device known as quipu; the function of textiles and their production; the role of ancestors and myths in state formation and function; new perspectives on the Spanish conquest. Offered occasionally.

HIS 389 HISTORICAL PERSPECTIVES (TOPICS)

3, 3/0

Examination of themes and unique developments in history that stand apart from the normal pattern; analytical and historiographical approach to such topics and phenomena as reform and reaction in American life; impact of ideology in European relations; clash of tradition and modernization in Asia; rise of nationalism in Latin America; emergence of a third world. Emphasis on class discussion of assigned materials and oral and written reactions to readings. Offered occasionally.

HIS 400 SENIOR SEMINAR IN HISTORY

3, 3/0; IN23, RE23

Prerequisites: Senior standing and HIS 300. Readings, discussion, and research on selected problems in history, which results in a substantial research paper. Fulfills seminar requirement for history majors and secondary social studies majors. Offered every semester.

HIS 401 TWENTIETH-CENTURY EUROPEAN DIPLOMACY

3, 3/0

Causes and diplomatic problems of World Wars I and II; the Paris Peace Conference and interwar diplomacy; peacemaking in the Cold War era; the European movement; Gaullism and its consequences. Offered occasionally.

HIS 402 THE ITALIAN RENAISSANCE

3, 3/0

History, politics, culture, and thought of the Italian Renaissance, its achievements, and its impact on European and world civilizations. Development and contributions of humanism and on the distinctive cultural worlds of Florence, Milan, Naples, Venice, and Rome. Offered occasionally.

HIS 404 THE SOUTH SECTIONALISM, AND THE CIVIL WAR

3, 3/0

The structure of the American south; sectional development and states' rights; slavery; the development of antislavery agitation and reform; the rise of Lincoln and the division of political parties; Civil War and the military; constitutional and diplomatic crises; economic and social impact of the war; reconstruction of the Union. Offered occasionally.

HIS 405 REFORMATION

3, 3/0

Impact of the Renaissance and Reformation on intellectual, artistic, economic, and political development of Europe; social and religious problems; humanism, secularism, classicism, individualism in Italy and Northern Europe; Protestant reform and reformers; Catholic Reformation. Offered occasionally.

HIS 406 THE FRENCH REVOLUTION AND NAPOLEON

3, 3/0

Political, social, economic, and intellectual fabric of the Old Regime; the Revolution; dictatorship of Napoleon and spread of revolutionary ideas; rise of modern nationalism. Offered occasionally.

HIS 407 THE TEACHING OF HISTORY

3, 3/0

The curriculum and practice of teaching history, the historical perspective on the role of history in the social studies, and the political uses of the teaching discipline. Research foundation of historical meaning for instructional practice links material presented in various content and pedagogical courses in the program. Offered occasionally.

Equivalent Course: SSE 407

HIS 408 HISTORY OF AMERICAN THOUGHT

3, 3/0

Sources of major bodies of thought and ideas in American history; their impact upon American culture; the role ideas have played in producing a distinctive culture. Offered occasionally.

HIS 412 HISTORY OF EAST CENTRAL EUROPE

3, 3/0

Social, political, and economic history of the Baltic States, Western Slavdom, and the Balkan peninsula; struggle of Eastern and Western civilizations; competition of the great powers for the domination of this area and the role of these peoples as Russian satellites. Offered occasionally.

HIS 413 LATIN AMERICAN ENVIRONMENTAL HISTORY

3, 3/0

Prerequisites: Upper Division status or Instructor Permission. How humans have shaped the landscape, water, and air of Latin America. Pre-Columbian farming. Mining in Mexico and the Andes, deforestation, pollution of rivers and waterways for commodities. European livestock in the region and environmental degradation. Urbanization and ecotourism in Latin America.

HIS 415 HISTORY AND GOVERNMENT OF NEW YORK STATE

3, 3/0

Aboriginal background; development of the colony; establishment of the state; rise of political parties; past and present structure and problems of New York State government; current economic and social growth. Offered occasionally.

HIS 418 FOOD AND GLOBAL HISTORY

3, 3/0

How food has influenced human society from hunter-gatherer societies to the present. Food rituals, famines, food and spice trade, national identity. How cultures from Asia, Africa, Europe, and the Americas understood their relationship to food. Offered occasionally.

HIS 419 CURATORSHIP

3, 3/0

Principles and techniques of collection and care of museum collection: the library, collections, audiovisual materials, archives, iconography, and historic sites; development of professional expertise in curatorship. Offered occasionally.

HIS 420 ADMINISTRATION OF THE HISTORICAL AGENCY OR ART MUSEUM

3, 3/0

Principles and practice of administration of museums. Problems of organization, collection, exhibition, public services, finance, special public relations, and trustee relations. Experience in the area of interpretation. Offered occasionally.

HIS 422 TUDOR AND STUART ENGLAND

3, 3/0

Henry VII and the new dynasty; religion and politics under the early Tudors; the age of Elizabeth I; the Stuarts and the Puritan revolt; restoration and revolution; limiting the monarchy and establishing the empire. Offered occasionally.

HIS 425 MUSEUM PRESERVATION AND PRACTICE

3, 3/0

Acquaints students who are non-conservation specialists with conservation principles of museum collections. Environmental, handling, and procedural issues; lecture, demonstrations, and practical work; examine exhibition and storage facilities at local institutions. Offered occasionally.

Equivalent Course: MST 425

HIS 430 UNITED STATES: THE NEW NATION

3, 3/0

The United States following the American Revolution through Andrew Jackson's administration; federal authority, political parties, industrial and sectional economic development during a period of territorial, social, and diplomatic transformation; the formative and foundational structure of American society during the periods of Washington, Jefferson, and Jackson. Offered occasionally.

HIS 440 THE HOLOCAUST

3, 3/0

Persecution and murder of Jews and other victims of Nazi genocide. Historical anti-Semitism, the personality of Adolf Hitler, the traumas of Weimar Germany, birth and rise of the Nazi party, persecution and extermination of Jews, non-Jewish victims, the death camps, Jewish resistance, and world reaction to Nazi policies. Offered occasionally.

HIS 445 HISTORY OF WOMEN AND GENDER IN THE MIDDLE EAST

3, 3/0

History of women and gender in the Middle East from Muhammad to present. Women and gender in the formation of Islam, medieval caliphates, and Islamic empires. Historical role of modernization, and colonization on early Middle Eastern feminist movements. The end of empires and influence of nation-building on social relations.

HIS 447 NINETEENTH CENTURY EUROPEAN INTELLECTUAL HISTORY

3, 3/0

Prerequisites: Upper-division status. European intellectual history 1789-1914. Topics include political and artistic responses to the French and Industrial revolutions; romanticism, liberal-democratic nationalism, and utopian socialism; the failed revolutions of 1848; modernism and realism in the arts; positivism in philosophy; conservative nationalism and scientific socialism; Darwin and Social Darwinism; the new imperialism and its critics, 1880-1914; racism, radical nationalism, political anti-Semitism; the Second International and syndicalism; the revolt against positivism and realism in philosophy and the arts; the birth of modern sociology. Offered occasionally.

HIS 448 TWENTIETH CENTURY EUROPEAN INTELLECTUAL HISTORY

3, 3/0

Prerequisites: Upper-division status. Main currents of European intellectual and cultural life from 1914-2001. Topics include psychoanalysis; intellectual and cultural responses to World War I, the Russian Revolution and the rise of fascism; Critical Theory, existentialism, feminism and postmodernism; decolonization and the protest movements of the 1960s; the Cold War and the collapse of the Soviet communism; globalization, immigration and the new multicultural Europe. Offered occasionally.

HIS 450 MUSEUM INTERNSHIP

3-6, 0/0

For students interested in gaining practical experience in museum work. Assignment to a particular museum is based on a student's major-related disciplines. Students in areas such as history, anthropology, art history, education, and the natural sciences are eligible. Offered occasionally.

Equivalent Course: MST 450

HIS 460 PATTERNS OF HISTORY IN SOUTHEAST ASIA

3, 3/0

Examination of key topics in the social and political history of the principal regions of Southeast Asia. Primary emphasis on the cultural heritage and political origins of the major modern Southeast Asian nations. Myanmar (Burma), Thailand, Malaysia, Cambodia, Vietnam, Indonesia, Singapore, and the Philippines. Offered occasionally.

HIS 465 IMPERIALISM IN THE 19TH AND 20TH CENTURIES

3, 3/0; GA23

Imperialism in Asia and Africa through decolonization. Political and economic motives for acquiring colonies. Historiography of imperialism. Colonial administration and economic exploitation. Role of missionaries. Colonial culture and society. Women and imperialism. Collaboration, complicity, and resistance among indigenous peoples. Colonial nationalism and decolonization. Offered occasionally.

HIS 466 DRUGS AND GLOBAL HISTORY

3, 3/0

Prerequisites: Upper division status or Instructor Permission. Research seminar on the history, culture, and sociology of drug consumption including food drugs such as coffee, tea and yerba maté. Cultural uses of drugs and their rejection or acceptance in society. How drug commodities have influenced human migration patterns and global economics. Offered occasionally.

HIS 468 READINGS IN AFRICAN AMERICAN HISTORY

3, 3/0

The major historical writings on selected periods and topics in African American history. Readings, discussions, and writing book reviews and biographical essays. Offered occasionally.

Equivalent Course: AAS 468

HIS 469 BLACK PROTEST AND LEADERSHIP IN THE UNITED STATES IN THE TWENTIETH CENTURY

3, 3/0

The black protest movements and leaders in twentieth-century America. Offered occasionally.

Equivalent Course: AAS 469

HIS 477 TALES OF THE CITY: A TELEVISUAL INTRODUCTION TO URBAN HISTORY

3, 3/0

Prerequisites: Upper-division status or instructor permission. Introduction to the methodologies and questions of urban history and the crisis of American cities through discussion of readings and television depictions of urban change. Culminates in a substantial research paper that investigates Buffalo's urban history. Offered occasionally.

HIS 480 DIGITAL MUSEUM COLLECTIONS

3, 3/0

Digital technology enables museums to make their collections more accessible. Students investigate what is involved in digitizing museum objects through classroom instruction and a class project. To balance theory with practice, students work as a group to develop their own digital collection. Course is taught at Buffalo State College and a local cultural institution. Offered occasionally.

Equivalent Course: MST 480

HIS 488 INTERNSHIP

1-12, 0/0

Background of courses or experience within the area of interest; 6 credit hours of lower-division major courses; 6 credit hours of history and social studies education coursework at the upper-division level; minimum cumulative GPA of 2.5 (overall and in major coursework); approval of student adviser and department chair. Internships provide students with guided, supervised field experiences that complement the academic program. Offered occasionally.

Equivalent Course: SSE 488

HIS 490 SENIOR SEMINAR IN HISTORIOGRAPHY

3, 3/0

Prerequisites: Senior standing and HIS 300. Acquaints history and social studies education majors and others with great works of historic literature in the Western and other traditions. Introduction to the development of historical writing from ancient times to the present. Students are encouraged to assess sources that have been used to record the past and to examine the various methodologies employed by historians in studying the past. Offered every semester.

HIS 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

HIS 497 SPECIAL WORKSHOP

1, 0/0

Offered occasionally.

HIS 498 HONORS RESEARCH

1-9, 0/0

Prerequisite: Completion of 12 credit hours in the history honors program. An advanced research course for students in the history honors sequence. Offered occasionally.

HIS 499 INDEPENDENT STUDY

3, 0/0

Offered occasionally.

Social Studies Education (SSE)

SSE 200 INTRODUCTION TO SECONDARY TEACHING

3, 3/0

Classroom and field experiences designed to help students make better-informed decisions regarding careers in secondary social studies education. For the general student, provides important background for their roles as citizens and as parents. Required for social studies education majors. Offered Every Semester.

SSE 303 METHODS AND MATERIALS IN TEACHING MIDDLE SCHOOL SOCIAL STUDIES

3, 3/0

Prerequisites: 6 credit hours of professional education courses, SST 200, cumulative 2.75 GPA (overall and in major coursework). May not be taken concurrently with SSE 309. Focuses on the problems of the teacher; techniques for teaching; analyzing classroom behavior; self-evaluation; and peer evaluation of teaching practices. Offered Every Semester.

SSE 309 METHODS AND MATERIALS IN TEACHING HIGH SCHOOL SOCIAL STUDIES

3, 3/0

Prerequisites: Upper-division status, SSE 200, minimum cumulative GPA of 2.75 (overall and in major coursework). May not be taken concurrently with SSE 303. The purposes, goals, curricular materials, methodologies, and instructional techniques of social studies education; students develop competency in designing and practicing instructional strategies drawn from methodologies and of the curricular materials of social studies education and the disciplines of history and the social sciences. Offered Every Semester.

SSE 350 THE TRADITIONS OF THE PEOPLE OF THE LONGHOUSE (THE HO DE NO SAU NEE)

3, 3/0

An introduction to the traditions of the People of the Longhouse (Haudenosaunee); pre-Columbian founding of the League, clan system, early colonial relationships, role in American Revolution, state of the Nations, and primary current issues. Offered occasionally.

SSE 363 AMERICAN IDENTITY IN TRANSITION: DIVERSITY AND PLURALISM IN THE UNITED STATES

3, 3/0

The diverse, pluralistic makeup of American society. The roots of pluralism and what it means for the daily experience of living in America. Themes of diversity are explored through history and literature. Focuses on the activities of four major underrepresented groups in their struggle for liberation: African Americans, Native Americans, Latinos, and Asians. Encourages a multicultural view of America. Offered occasionally.

Equivalent Course: HIS 363

SSE 370 COMPUTER TECHNOLOGY IN THE SOCIAL STUDIES CLASSROOM

3, 3/0

Prerequisite: History and social studies education major. Familiarizes students with relevant software and methodology for its use in the social studies classroom. All students have the opportunity to participate on the microcomputer. Offered Every Semester.

SSE 402 HISTORICAL AND PHILOSOPHICAL FOUNDATIONS OF SOCIAL EDUCATION

3, 3/0

Prerequisite: Upper-division status. The development of the social studies curriculum in relation to the larger social, economic, educational, and political forces operating in American society; enduring philosophical issues as to what is the "good" society, the "good" citizen, and the best curriculum and instructional methods to create them. Offered occasionally.

SSE 404 SEMINAR IN ELEMENTARY SOCIAL STUDIES

3, 3/0

Prerequisites: EDU 210 and EDU 352. Students learn to more effectively utilize their social science preparation for early secondary and elementary social studies instruction; make decisions concerning their tentative positions on the function of the school and

society, the purpose of social studies, and the available alternatives to teachers in the areas of methodology, psychology, and curriculum. Offered occasionally.

SSE 407 THE TEACHING OF HISTORY

3, 3/0

Prerequisite: Upper-division status. The curriculum and practice of teaching history, the historical role of history in the social studies, the political uses of the teaching discipline; provides a research foundation as to how historical meaning is constructed as a base for instructional practice; serves as a link between the material presented in content and pedagogical courses in the program. Offered Every Semester.

Equivalent Course: HIS 407

SSE 409 STUDENT TEACHING OF SOCIAL STUDIES IN THE MIDDLE SCHOOL

6, 0/0

Prerequisites: Minimum cumulative GPA of 2.75 (overall and in major coursework), grade of C or higher in SSE 303 and SSE 309, successful completion of English composition/basic communication and mathematics competency requirements. Supervised teaching experience five full days a week for approximately seven consecutive weeks. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice required. Offered Every Semester.

SSE 410 STUDENT TEACHING OF SOCIAL STUDIES IN SENIOR HIGH SCHOOL

6, 0/0

Prerequisites: Minimum cumulative GPA of 2.75 (overall and in major coursework), grade of C or higher in SSE 303 and SSE 309, successful completion of English composition/basic communication and mathematics competency requirements. Supervised teaching experience five full days a week for approximately seven consecutive weeks. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice required. Offered Every Semester.

SSE 488 INTERNSHIP

1-12, 0/0

Prerequisites: SSE 409 and SSE 410, Sophomore, junior, or senior status; background of courses or experience within the area of interest; 6 credit hours of lower-division major coursework; 6 credit hours of history and social studies education coursework at the upper-division level; minimum cumulative GPA of 2.5 (overall and in major coursework); Student adviser and department chair permission. Guided, supervised field experiences that complement the academic program. Offered Every Semester.

Equivalent Course: HIS 488

SSE 495 SPECIAL PROJECT

3, 0/0

Offered occasionally.

SSE 497 WORKSHOP

1-2, 0/0

Offered occasionally.

SSE 499 INDEPENDENT STUDY

3, 0/0

Offered occasionally.

Mathematics (AMT, DSA, MAT, MED)

Applied Mathematics (AMT)

AMT 495 APPLIED MATHEMATICS PROJECT

3, 3/0; IN23, RE23

Prerequisites: Senior status or instructor permission. Independent research project in applied mathematics under the direction of the instructor. Composition of a written report and oral presentations of findings. Offered spring only.

Data Science and Analytics (DSA)

DSA 201 FOUNDATIONS OF DATA-ORIENTED COMPUTING WITH PYTHON

4, 4/0

Prerequisites: Instructor permission. Introduction to data oriented programming and algorithmic problem solving using Python. Python data structures. Data visualization. Introduction to object oriented programming. Applications to data processing, image manipulation and other. The class is hands-on and project oriented. Offered occasionally.

DSA 301 DATA SCIENCE AND ANALYTICS WITH SPREADSHEETS, DBS AND PYTHON

4, 4/0

Prerequisites: MAT 241 or instructor permission. Introduction to tools and techniques needed to collect, clean, analyze and present data that can be used in any academic discipline. Data scraping from the internet. Visualization of data using appropriate software, spreadsheets, databases, Python. Offered occasionally.

Mathematics (MAT)

MAT 103 INTRODUCTION TO MATHEMATICS

3, 3/0; MQ23

Some of the greatest achievements of mathematical thought, highlighting the beauty and creativity of these ideas. Topics include Fibonacci numbers; the golden rectangle; estimation; comparing infinities; fractals; the Pythagorean Theorem; the five platonic solids; and selected topics from probability and statistics. Designed for liberal arts majors who do not plan to take further math courses. Offered every semester.

MAT 107 CASINO GAMBLING

3, 3/0

Learn how the laws of probability and mathematical expectation can uncover the player's disadvantage in various gambling situations. An essential element in the classroom will be the actual playing of the major casino games so that the student gains first-hand encounters with the phenomenon of chance and the problems of making a decision in the face of uncertainty.

MAT 114 FUNCTIONS AND MODELING

3, 3/0; MQ23

Prerequisite: 3 years high school mathematics or equivalent. Describe and explore real-world functions, data, and phenomena through graphic, numeric, symbolic, and verbal representations. Use elementary functions (linear, polynomial, power, and exponential) to investigate and analyze applied problems (supported by the use of appropriate technology). Offered every semester.

MAT 121 ELEMENTARY MATHEMATICS FROM AN ADVANCED STANDPOINT I

4, 4/0

Prerequisite: 3 years of high school math or equivalent. First course of a two-semester sequence on the fundamental concepts of elementary mathematics: positional numeration systems, number and operations, proportional reasoning, and number theory. Emphasis on problem solving, understanding the concepts and procedures of elementary mathematics, mathematical modeling, the use of manipulatives, and effective communication of mathematical ideas. Offered every semester.

MAT 122 ELEMENTARY MATHEMATICS FROM AN ADVANCED STANDPOINT II

4, 4/0; MQ23

Prerequisite: MAT 121 or equivalent. Second course of a two-semester sequence on the fundamental concepts of elementary mathematics: 2- and 3-dimensional geometry, measurement, probability, statistics, linear and non-linear functions. Emphasis on problem solving, understanding the concepts and procedures of elementary mathematics, mathematical modeling, the use of manipulatives, and effective communication of mathematical ideas. Offered every semester.

MAT 124 FUNCTIONS AND MODELING II

3, 3/0; MQ23

Prerequisite: MAT 114 with a minimum grade of C, or equivalent. A precalculus course designed for students who have completed a minimum of three years of New York State Regents high school mathematics or the equivalent. Topics include analysis of polynomial, rational, exponential, logarithmic, and trigonometric functions from graphical, symbolic, numerical, and verbal perspectives with an emphasis on modeling and applications of those functions in real-world contexts. No credit given to students who have previously completed MAT 126 or MAT 161 or equivalent. Offered every semester.

MAT 126 APPLIED CALCULUS I

4, 4/0; MQ23

Prerequisite: MAT 124 with a minimum grade of C, or four years of Regents high school mathematics. Intuitive introduction to differential and integral calculus. Analysis of functions, derivatives of algebraic, exponential, and logarithmic functions, applications of the derivative, anti-derivatives of simple algebraic, exponential and logarithmic functions, area and the fundamental theorem of calculus. Graphical, symbolic, numerical, and verbal representations are used for all topics. Designed for students majoring in disciplines that use calculus as a tool. No credit given to students who have previously completed MAT 161 or equivalent. Offered every semester.

MAT 127 APPLIED CALCULUS II

4, 4/0

Prerequisite: MAT 126 with a minimum grade of C, or equivalent. Continuation of MAT 126. Techniques of integration; applications of integration; introduction to differential equations including separation of variables, first order linear equations, and their applications; Taylor polynomials; Newton's method; partial derivatives; and optimization of functions of two and three variables. Graphical, symbolic, numerical, and verbal representations are used for all topics. Designed for students majoring in disciplines that use calculus as a tool. No credit given to students who have previously completed MAT 162 or equivalent. Offered every semester.

MAT 161 CALCULUS I

4, 4/0; MQ23

Prerequisite: MAT 124 with a minimum grade of C. Graphic, symbolic, and numeric representation and analysis of functions; limits; continuity; derivatives and antiderivatives of algebraic, trigonometric, exponential, and logarithmic functions; applications of the derivative and antiderivative. Appropriate for math majors and students in partner disciplines requiring understanding of fundamental principles of calculus with emphasis on deductive reasoning and proof. Offered every semester.

Equivalent Course: MAT 126

MAT 162 CALCULUS II

4, 4/0

Prerequisite: MAT 161 with a minimum grade of C. Corequisite: MAT 164. A continuation of MAT 161. Area accumulation functions; definition of the definite integral; fundamental theorem of calculus; integration techniques; applications of integrals; improper integrals; sequences and series; function approximation. Graphic, symbolic, and numeric representations are used throughout the course. Appropriate for math majors and students in partner disciplines requiring understanding of fundamental principles of calculus with emphasis on deductive reasoning and proof. Offered every semester.

MAT 163 USING TECHNOLOGY TO EXPLORE CALCULUS I

1, 0/1

Exploration of Calculus I using a programmable graphing calculator. Offered every semester.

MAT 164 USING TECHNOLOGY TO EXPLORE CALCULUS II

1, 0/1

Corequisite: MAT 162 or equivalent. Exploration of Calculus II, using a computer algebra system. Offered every semester.

MAT 189 TOPIC COURSE

1-3, 0/0

Current topics in Mathematics. Offered occasionally.

MAT 202 INTRODUCTION TO LINEAR ALGEBRA

3, 3/0

Prerequisite: MAT 161 or MAT 126. Linear systems of equations, vector spaces, and linear transformations, solving linear equations, matrix algebra, determinants, eigenvalues and eigenvectors, matrices as linear transformations, basis of a vector space, orthogonality of vectors, projecting vectors into subspaces. Offered every semester.

MAT 223 ELEMENTARY AND MIDDLE SCHOOL MATHEMATICS FROM AN ADVANCED STANDPOINT

4, 4/0

Pre-requisite: MAT 121, MAT 122. Deepens and extends content introduced in MAT 121 and MAT 122 through study of analytic and synthetic geometry, transformational geometry, statistics and fundamental concepts of probability. Emphasis on mathematical reasoning and problem solving, mathematical modeling, use of appropriate tools, and effective communication of mathematical ideas prominent in upper elementary and middle school.

MAT 241 COMPUTATIONAL TOOLS FOR APPLIED MATHEMATICIANS I

3, 3/0

Prerequisite: MAT 161. Fundamental concepts of problem solving by computer as applied to mathematics. Computer organization, operations and functions, algorithm development, programming techniques. Numerical methods as used in calculus, linear algebra, geometry, etc. Uses a computer language to be applied in this and other mathematics classes. Offered fall only.

MAT 263 CALCULUS III

4, 4/0

Prerequisite: MAT 162 with a minimum grade of C, or equivalent. Corequisite: MAT 264. Multivariable spaces and functions, multivariable derivatives, multivariable integrals, and vector analysis. Offered every semester.

MAT 264 USING TECHNOLOGY TO EXPLORE CALCULUS III

1, 0/1

Prerequisite: MAT 164. Corequisite: MAT 263. Exploration of Calculus III using a Computer Algebra System. Offered every semester.

MAT 270 DISCRETE MATHEMATICS

3, 3/0

Prerequisites: 4 years of high school mathematics or equivalent. Fundamental principles used in discrete mathematics. Topics include logic, mathematical induction, sets, relations, functions, permutations, combinations, recursion, and graph theory. Offered every semester.

MAT 295 RESEARCH EXPERIENCE IN MATHEMATICS

1-3, 1/0

Scholarship or creative work conducted under the supervision of a faculty member.

MAT 300 TECHNIQUES OF PROOF

3, 3/0

Prerequisite: MAT 162 or MAT 127. A gateway to upper-division mathematics with an emphasis on mathematical structures, techniques of proof, and the effective written and oral communication of mathematical ideas. Designed to ease the transition from lower-division mathematics to more theoretical courses such as abstract algebra and real analysis. Students are required to submit written work and make oral presentations. Offered every semester.

MAT 301 INTRODUCTION TO GROUP THEORY

3, 3/0

Prerequisite: MAT 202 and MAT 300. Definition of a group; examples of groups; commutative and noncommutative groups; subgroups; cyclic groups and cyclic subgroups; permutation groups; dihedral groups; cosets and Lagrange's theorem; normal subgroups; group homomorphisms and group isomorphisms; quotient groups; and the Isomorphism Theorems. Offered spring only.

MAT 302 ABSTRACT ALGEBRA II

3, 3/0

Prerequisite: MAT 301. Quotient fields of integral domains, polynomials, rings; Euclidean domains, ideals, and factorization; finite fields, extension fields, splitting fields. Applications to geometric constructions and solvability chosen from contemporary areas of coding theory, block designs, etc. Offered occasionally.

MAT 309 COMBINATORICS

3, 3/0

Prerequisite: MAT 162 or MAT 127. Basic counting principles including permutations, combinations, the multiplication and addition rules, and the pigeonhole principle; distribution problems; combinatorial proofs; counting the complement and inclusion-exclusion arguments; breaking counting problems down into smaller subproblems; generating functions; permutation groups and Polya's enumeration theorem; combinatorial block designs. Offered occasionally.

MAT 311 INTRODUCTORY PROBABILITY AND STATISTICS

3, 3/0; MQ23

Prerequisite: Three years of Regents high school mathematics. Descriptive statistics; probability and random variables; binomial, normal, and t distributions; estimation and tests of hypotheses concerning means, proportions, and differences between means and proportions. Does not count toward the 0718, 0719, 0721 majors. Offered every semester.

MAT 315 DIFFERENTIAL EQUATIONS

3, 3/0

Prerequisites: MAT 162 or MAT 127. Preliminary ideas of order, degree, linear/nonlinear, direction fields, and solutions; formation of differential equations; first order differential equations; second order differential equations; higher order differential equations; systems of differential equations; series solutions. Offered fall only.

MAT 316 INTERMEDIATE DIFFERENTIAL EQUATIONS

3, 3/0

Prerequisite: MAT 315. Laplace transform; inverse Laplace transform and applications; partial differential equations; Fourier series; boundary value problems; transform methods application. Offered spring only.

MAT 318 MATHEMATICAL MODELING

3, 3/0

Prerequisites: MAT 162 and MAT 202. Construction, interpretation and application of mathematical models; various modeling paradigms such as deterministic, probabilistic, discrete and continuous modeling. Models which provide valuable insights into contemporary topics from different fields that may include bio-medical applications, financial mathematics, cellular automata models, mathematical methods for data collection and analysis in geology, mathematical tools for GIS, and weather prediction. Offered fall only.

MAT 319 MATHEMATICAL BIOLOGY

3, 3/0

Prerequisites: MAT 161 or instructor permission. A project-oriented, introductory mathematical modeling course with an emphasis on the construction and analysis of mathematical models of biological events and phenomena. Mathematical topics include matrix algebra, difference and differential equations. Biological topics include population dynamics, dynamics of infectious disease and models of molecular evolution. Offered spring only.

MAT 322 MODERN GEOMETRY

3, 3/0

Prerequisite: MAT 162 or MAT 127. Axiomatic systems; Euclidean geometry; constructions; transformational geometry; symmetry; computational geometry. Offered fall semester only

MAT 325 PROBABILITY AND STATISTICS

3, 3/0

Prerequisites: MAT 127 or MAT 162. Probability (graphic representations, descriptions of probabilistic events, combinatorics and combinatorial probability); discrete and continuous probability distributions; descriptive statistics; estimation and tests of hypotheses concerning means, proportions, variance and standard deviation and differences between means and proportions. Offered spring semester only.

MAT 351 ELEMENTARY THEORY OF NUMBERS

3, 3/0

Prerequisite: MAT 162 or MAT 127. Divisibility; Euclid's algorithm; numbers; prime factorization theorem; Euler's phi-function; Diophantine analysis; congruence; theorems of Fermat, Euler, and Wilson. Offered every semester.

MAT 366 COMPUTATIONAL TOOLS FOR APPLIED MATHEMATICIANS II

3, 3/0

Prerequisites: MAT 164, MAT 241, and MAT 270; or permission of instructor. Structured programming, verification of program validity, data structures, combinatorial problems, flow network, algorithms, random number generators, simulation of random and nonrandom processes. Offered spring only.

MAT 370 APPLIED NETWORKS

3, 3/0

Prerequisites: MAT 202. Introduction to network and graph theoretic concepts. Properties with application in computational mathematics, social science, decision making, and physical science. Offered occasionally.

MAT 381 PROBABILITY THEORY

3, 3/0

Prerequisites: MAT 127 or MAT 162 and MAT 270. Calculus-based introduction to the theory of probability and its applications; axioms of probability and theorems; discrete and continuous random variables; joint, marginal, and conditional distributions; independence of events; mathematical expectation; moment generating functions; and application of special probability distributions and densities. Offered every fall.

MAT 382 TOPICS IN MATHEMATICAL STATISTICS

3, 3/0

Prerequisite: MAT 381. Calculus-based introduction to the theory of statistical inference and its applications; functions of random variables; properties of estimators; sampling distributions; point and interval estimation; theory and applications of hypothesis testing. Offered every spring.

MAT 383 APPLIED STATISTICS I

3, 3/0

Prerequisites: MAT 382 or MAT 325. Categorical data analysis; simple linear regression and correlation; multiple linear regression; experimental design models (one, two or more factors); nonparametric statistics. Offered fall only.

MAT 390 INTRODUCTION TO OPERATIONS RESEARCH

3, 3/0

Prerequisites: MAT 202 and MAT 270. Optimization of real-world problems modeled by linear objective functions subject to systems of linear inequalities and solved by either the two-phase revised simplex method or by the network simplex method. Mathematics behind these methods. Applications in diverse areas such as business management, industry, economics, finance, game theory, geometry, and networks. Offered spring only.

MAT 401 INTRODUCTION TO COMPUTABILITY

3, 3/0

Prerequisites: MAT 270 and either MAT 301 or MAT 351. Introduction to topics in finite automata and Turing machines, including universal Turing machines and abstract computability. Offered occasionally.

MAT 404 APPLICATIONS OF LINEAR ALGEBRA

3, 3/0

Prerequisites: MAT 202 and MAT 263. Eigenvalue problems; diagonalizing matrices; linear programming; simplex method; applications to areas such as business, industry, economics, social sciences, and behavioral sciences. Offered spring only.

MAT 411 COMPLEX VARIABLES

3, 3/0

Prerequisite: MAT 263. Complex numbers; analytic functions; elementary functions; contour integration; integral theorems; Taylor series; Laurent series; uniform convergence; calculus of residues; mappings and applications. Offered spring only.

MAT 417 INTRODUCTION TO REAL ANALYSIS I

3, 3/0

Prerequisite: MAT 263 and MAT 300. Elementary real analysis, including properties and axioms of the real number system; relations and functions; sequences; continuity; differentiation; infinite series; power series; Riemann integral. Offered once a year.

MAT 418 INTRODUCTION TO REAL ANALYSIS II

3, 3/0

Prerequisite: MAT 417 or equivalent. Continuation of MAT 417 with topics chosen from: Riemann-Stieltjes integration; improper integrals; infinite series; series of functions; partial differentiation; Jacobians; implicit function; multiple integrals; Fubini's Theorem. Offered occasionally.

MAT 430 SET THEORY

3, 3/0

Prerequisites: MAT 300 or PHI 307 with a grade of C or better. Fundamental facts about abstract sets—relations, functions, natural numbers, order, cardinality, transfinite recursion, the axiom of choice, Zorn's lemma, ordinal numbers, and cardinal numbers—within the framework of axiomatic set theory. Axioms used to investigate infinite sets and to generalize the concepts of induction and recursion. Offered occasionally.

MAT 431 MATHEMATICAL LOGIC

3, 3/0

Prerequisites: MAT 300 or PHI 307 with a grade of C or higher. Validity, deductibility, and completeness in propositional and predicate logics; first-order formal theories and informal theories in the context of set theory. Offered occasionally.

MAT 461 NUMERICAL ANALYSIS

3, 3/0

Prerequisites: MAT 162 or MAT 127. Numerical solutions (and error analysis) to linear and nonlinear equations; interpolation; curve fitting; function approximation; numerical differentiation and integration; differential equations. Offered occasionally.

MAT 471 INTRODUCTION TO TOPOLOGY

3, 3/0

Prerequisites: MAT 270 and either MAT 301 or MAT 417. Introduction to topology: sets and functions; metric spaces; topological spaces; connectedness; compactness; separation. Offered occasionally.

MAT 481 STOCHASTIC PROCESSES

3, 3/0

Prerequisite: MAT 325 or MAT 381. Random walks, Brownian motion, Markov chains and applications, continuous-time processes including exponential distribution and Poisson processes, software applications. Offered occasionally.

MAT 484 APPLIED STATISTICS II

3, 3/0

Prerequisite: MAT 383. Logistic regression, survival analysis, time series analysis. Offered occasionally.

MAT 486 MODELS AND METHODS OF ACTUARIAL MATHEMATICS

3, 3/0

Prerequisites: MAT 202, MAT 315 and MAT 381, or instructor permission, Applications of probability theory, calculus, linear algebra, and differential equations to the development and utilization of methods and models of actuarial mathematics such as survival models, mortality models, life tables, finite probability spaces, multivariate distributions, stochastic processes, Brownian motion, stochastic integrals, Ito's lemma. Offered occasionally.

MAT 490 SEMINAR

1-3, 1/0

Prerequisite: Senior mathematics major or permission of instructor. Investigation of topics of current interest to mathematicians, such as group theory; game theory; differential geometry; measure theory; sampling theory. Emphasis on oral presentations and discussions. Offered occasionally.

MAT 491 CAPSTONE RESEARCH IN MATHEMATICS

3, 3/0; IN23, RE23

Prerequisites: MAT 301 or MAT 417 and senior status; or permission of instructor. Independent research under the direction of the instructor. Composition of a research paper and presentation of results at a seminar for faculty and students. Offered spring only.

MAT 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

MAT 499 INDEPENDENT STUDY

3-12, 0/0

Offered every semester.

Mathematics Education (MED)

MED 200 FOUNDATIONS OF TEACHING MATHEMATICS 7-12 AND FIELD EXPERIENCE

3, 1.5/0

Prerequisites: MAT 161 or permission of instructor. Current policies and practices in the field of mathematics education including content and pedagogy, national and state standards, and psychological, social, cultural and gender factors that affect the teaching and learning of mathematics. Field experiences in secondary mathematics classrooms that feature racial and ethnic diversity, diversity in SES, and include students with diverse mathematical abilities as well as those identified as having special needs. Offered fall only.

Equivalent Course: SED 200

MED 300 FIELD EXPERIENCE: METHODS IN THE TEACHING OF SECONDARY SCHOOL MATHEMATICS

3, 2/0

Corequisite: MED 308. Supervised field experience at the middle and/or high school level. Emphasis on implementing pedagogical knowledge, understanding, and practice consistent with state and national mathematics teaching standards discussed in MED 308.

Students design and deliver lessons and assessments in a variety of settings (i.e. small group, large group) during 30 hours of clinical experience at local schools. Offered spring only.

MED 307 USES OF TECHNOLOGY IN THE TEACHING OF MATHEMATICS

3, 3/0

Prerequisites: Upper division status and permission of instructor. 15 hours of field experience required. Equipment and software available for use in the mathematics classroom. Effective use of technology in exploration and development of concepts, problem solving, development of lessons, and assessment of educational potential of current and new technologies. Production and evaluation of projects for use in the mathematics classroom. Offered spring only.

Equivalent Course: SED 307

MED 308 METHODS IN THE TEACHING OF SECONDARY SCHOOL MATHEMATICS

3, 3/0; IN23, RE23

Prerequisite: Minimum of 30 hours of MAT courses completed with a GPA of 2.75. Minimum of 9 hours of Professional courses including MED 200 and MED 307 with a GPA of 2.5. Permission of instructor. Corequisite: MED 300. Introduction to research-based teaching practices that lead to success for all students; teaching practices that support learning in culturally responsive environments and respond to learners with unique needs; instruction that effectively integrates technology; national and state standards and standards-based curricula; national and international achievement data; assessment practices; lesson design. Offered as needed.

MED 309 TEACHING MATHEMATICS IN THE MIDDLE SCHOOL

3, 3/0

Prerequisites: Must be enrolled in 0524; a minimum of 24 hours of the math concentration completed with a GPA of 2.5 or higher; a minimum of 6 hours of professional education courses completed with a GPA of 2.5 or higher; permission of instructor. Preparation to teach mathematics in grades 5-9. Includes techniques and models used to teach mathematics at the middle-school level in the context of current research on how children learn mathematics. Offered spring only.

MED 383 LEARNING AND TEACHING PROBLEM SOLVING

3, 3/0

Prerequisites: CWP 102, MAT 162 or MAT 127, MAT 270, upper-division status. Experiences in mathematical problem-solving; learning through problem-solving; consideration of diverse perspectives and problem-solving approaches; strategies for teaching the use of a problem based approach; the historical and current roles of problem solving in secondary mathematics. Offered spring only.

MED 406 STUDENT TEACHING OF MATHEMATICS IN THE LOWER MIDDLE GRADES 5-6

6, 0/0

Prerequisites: Completion of MED 200, MED 307, MED 309, MED 383W, SPF 303, all required mathematics courses, and 6 credit hours of upper-division mathematics courses; minimum GPA of 2.5 in all mathematics and education coursework; senior status. Lower middle school laboratory experiences, goals of lower middle school education, psychological influences, teaching models, assessment techniques, classroom management, total involvement in lower middle school activities, practicum. Offered occasionally.

MED 407 STUDENT TEACHING OF MATHEMATICS IN JUNIOR HIGH/MIDDLE SCHOOL

6, 0/0

Prerequisites: Completion of MED 308 and MED 300 or MED 309 with a minimum grade of C; completion of all mathematics coursework; minimum cumulative GPA of 2.5 in all major mathematics courses; completion of all education courses with a minimum cumulative GPA of 2.5; senior status; and instructor permission. Supervised teaching experience five full days a week for approximately eight consecutive weeks in an early secondary mathematics classroom. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice required. Offered every semester.

MED 408 STUDENT TEACHING OF MATHEMATICS IN HIGH SCHOOL

6, 0/0

Prerequisites: MTS major; completion of MED 308 and MED 300 with a minimum grade of C; completion of all mathematics degree coursework; minimum cumulative GPA of 2.5 in all major mathematics courses; completion of all education courses with a minimum cumulative GPA of 2.5; senior status; and instructor permission. Supervised teaching experience five full days a week for approximately eight consecutive weeks in an early secondary mathematics classroom. Effective demonstration of content knowledge, pedagogical preparation, instructional delivery, classroom management, knowledge of student development, collaboration with school professionals, and reflectivity of practice required. Offered every semester.

MED 495 SPECIAL PROJECT

1-3, 0/0

Research project at the undergraduate level with a focus on mathematic education in middle/high schools.

MED 499 INDEPENDENT STUDY

3-12, 0/0

Offered every semester.

Modern and Classical Languages (ARA, CHI, FRE, ITA, MCL, SPA)

Arabic (ARA)

ARA 101 BEGINNING ARABIC I

3, 3/0; WL23

Rudimentary fundamentals of Arabic with emphasis on the spoken and written language. Offered annually.

ARA 102 BEGINNING ARABIC II

3, 3/0

Prerequisites: ARA 101. Fundamentals of Arabic with emphasis on the aural comprehension and spoken language, as well as developing the ability to read and write. Offered annually.

Chinese (CHI)

CHI 101 BEGINNING CHINESE I

3, 3/0; WL23

Fundamentals of Mandarin Chinese with an emphasis on the spoken and written language. Offered fall only.

CHI 102 BEGINNING CHINESE II

3, 3/0

Prerequisite: CHI 101 or equivalent. Continuation of CHI 101. Offered spring only.

CHI 201 INTERMEDIATE CHINESE I

3, 3/0

Prerequisite: CHI 102 or equivalent. Further development of Mandarin Chinese with an emphasis on reading and writing. Offered fall only.

CHI 202 INTERMEDIATE CHINESE II

3, 3/0

Prerequisite: CHI 201 or equivalent. Continuation of CHI 201. Offered spring only.

CHI 301 CHINESE CONVERSATION AND COMPOSITION I

3, 3/0

Prerequisites: CHI 202. Practice in spoken and written Mandarin Chinese. Offered fall only.

CHI 302 CHINESE CONVERSATION AND COMPOSITION II

3, 3/0

Prerequisites: CHI 301. Practice in spoken and written Mandarin Chinese. Offered occasionally.

CHI 389 TOPICS COURSE

3-9, 0

French (FRE)

FRE 101 BEGINNING FRENCH I

3, 3/0; WL23

Fundamentals of French, with an emphasis on developing the spoken and written language at the Novice-Mid level of proficiency, as well as on common educational, family, and geographically diverse features of French-speaking cultures. Offered every semester.

FRE 102 BEGINNING FRENCH II

3, 3/0; WL23

Prerequisite: FRE 101 or equivalent. Fundamentals of French, with an emphasis on developing the spoken and written language at the Novice-high level of proficiency, as well as on common health, sports, leisure, and culinary features of French-speaking cultures. Offered every semester.

FRE 189 TOPIC COURSE

1-3, 0/0

Current topics in French. Offered occasionally.

FRE 201 INTERMEDIATE FRENCH I

3, 3/0

Prerequisite: FRE102. Taught in French. Speaking, reading, writing, and listening comprehension proficiency skill-building, based on competencies acquired in FRE102. Exploration of the geography, culture, and society of France and West Africa, including regional cuisine, music, literature, and university life. Offered each semester.

FRE 202 INTERMEDIATE FRENCH II

3, 3/0

Prerequisite: FRE 201. Continuation of FRE 201. Further development of basic skills with emphasis on reading and writing. Offered occasionally.

FRE 203 WORKPLACE FRENCH I

3, 3/0

Prerequisite: FRE 202. Taught in French. Common written and oral interactions in the French-speaking workplace. Language skills and proficiency practice at the intermediate-low level of the ACTFL (American Council on the Teaching of Foreign Languages) scale. Offered occasionally.

FRE 204 WORKPLACE FRENCH II

3, 3/0

Prerequisite: FRE 202. Taught in French. Common written and oral interactions in the French-speaking workplace. Language skills and proficiency practice targeted toward the intermediate-mid level of the ACTFL (American Council on the Teaching of Foreign Languages) scale. Offered occasionally.

FRE 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

FRE 301 INTRODUCTION TO FRANCOPHONE CULTURE

3, 3/0

Prerequisites: FRE 202. Taught in French. Study of the French Language through exploration of Francophone cultures. Oral, written, and reading skill-building practice at the intermediate-mid level of the ACTFL (American Council for the Teaching of Foreign Language) scale. Offered occasionally.

FRE 302 INTRODUCTION TO FRANCOPHONE MEDIA

3, 3/0

Prerequisites: FRE202. Taught in French. Study of the French language through exploration of Francophone cinema and media. Oral, written, and reading skill-building practice at the intermediate-mid level of the ACTFL (American Council for the Teaching of Foreign Language) scale. Offered occasionally.

FRE 306 FRENCH CULTURE: PREHISTORY TO THE RENAISSANCE

3, 3/0

Prerequisite: FRE 301 or FRE 302. Survey of the literature of France from prehistory to the Renaissance and its relationship to French history and culture. Offered occasionally.

FRE 307 FRENCH CULTURE: RENAISSANCE TO REVOLUTION

3, 3/0

Prerequisites: FRE 301 and FRE 302. Taught in French. Introduction to key historical, social, cultural & literary figures, works, ideologies, and events in France from 1515 to 1789. Offered occasionally.

FRE 308 FRENCH CULTURE: REVOLUTION TO BELLE EPOQUE

3, 3/0

Prerequisites: FRE 302. Taught in French. Introduction to key historical, social, cultural, and literary figures, works, ideologies, and events in France from 1789 to 1890. Offered occasionally.

FRE 309 LITERATURE AND CULTURE OF FRANCE IN THE TWENTIETH CENTURY

3, 3/0

Prerequisite: FRE 301 or FRE 302. Survey of the literature of France in the twentieth century and its relationship to French history and culture. Offered occasionally.

FRE 310 ISSUES IN PROFESSIONAL COMMUNICATION

3, 3/0

Prerequisites: FRE 302. Taught in French. Strategies for bicultural, bilingual communication in the workplace. Examination of communication and miscommunication commonly experienced by U.S. nationals in Francophone workplace settings. Oral, written, and reading skill-building practice at the advanced-mid level of the ACTFL (American Council for the Teaching of Foreign Language) scale. Offered occasionally.

FRE 321 ISSUES AND THEMES IN THE FRANCOPHONE WORLD

3, 3/0

Prerequisites: FRE 302 or equivalent; instructor permission. In French. Development and practice of French language skills through exploration of current issues facing the Francophone world. Offered occasionally.

FRE 331 FRENCH LITERATURE IN TRANSLATION

3, 3/0

Selected masterpieces of contemporary French literature in translation. Knowledge of French not required. French majors and minors must obtain department chair and permission of course instructor. Offered occasionally.

FRE 341 FRANCOPHONE LITERATURE IN TRANSLATION

3, 3/0

Aspects of the Francophone world (French-speaking Europe, North America, Africa, and the Caribbean). Emphasis on historical, political, economic, and social changes resulting from colonial, neocolonial, and antecolonial periods. French majors and minors must obtain department chair and permission of course instructor. Offered occasionally.

FRE 389 TOPICS COURSE

3, 0/0

Current advanced topics in French. Offered occasionally.

FRE 415 ADVANCED GRAMMAR AND COMPOSITION

3, 3/0

Prerequisites: FRE 301 and FRE 302. Advanced topics of French grammar with work in French composition. Offered occasionally.

FRE 420 LITERATURE AND SOCIETY OF FRANCOPHONE CANADA: 1700 TO THE PRESENT

3, 3/0

Prerequisites: One 300-level FRE literature course and instructor permission. Taught in French. Study of the lasting impact of French colonialism on the society, literature, and self-identity of Francophone North America. Offered occasionally.

FRE 435 FRANCOPHONE AFRICAN LITERATURE IN POST-COLONIAL CONTEXT

3, 3/0

Prerequisites: One 300-level FRE literature course and instructor permission. Taught in French. Study the effects of colonialism on the society, culture, and self-identity of Francophone Africa. Offered occasionally.

FRE 440 ORIGINS OF MODERN FRANCE

3, 3/0

Prerequisites: FRE 306 or FRE 307 or FRE 308 or FRE 309, and instructor permission. Taught in French. An examination of the 19th – century intellectual trends, scientific advances, and social welfare initiatives that made France what it is today, as portrayed in the novels of key authors of the period 1850-1890. The industrial Revolution and its impact on daily life. The influence of contemporary

developments in germ theory, urban planning, and social welfare reform on the urban renewal campaign of Emperor Napoleon III. Evolutionary theory and its impact on the ideology and novels of key authors of the naturalist school of literature. Offered occasionally.

FRE 455 MOLIERE'S COMEDIES IN SOCIO-CULTURAL CONTEXT

3, 3/0

Prerequisites: Instructor permission. Taught in French. Analysis of the life and works of Moliere, the milieu for which he wrote, the conventions of 17th-century French drama, the influence of contemporary political rivalries, social conditions, and court practices on his work and career. Offered occasionally.

FRE 460 FRANCO-CARIBBEAN LITERATURE, HISTORY & CULTURE

3, 3/0

Prerequisites: At least one previous upper-level, undergraduate literature course in French. History, social issues, syncretic aspects of the French Caribbean culture in literary context. Characteristic literary themes, conflicts, and symbolism in key works of major Franco-Caribbean authors. Taught in French. Offered spring only, alternate years.

FRE 495 SPECIAL PROJECT

1-3, 0/0

FRE 496 SEMINAR I

3, 3/0

Prerequisite: Permission of instructor. Topic chosen by instructor. Offered occasionally.

FRE 497 SEMINAR II

1-3, 3/0

Prerequisite: Permission of instructor. Topic chosen by instructor. Offered occasionally.

FRE 499 INDEPENDENT STUDY

3-12, 0/0

Offered every semester.

Italian (ITA)

ITA 101 BEGINNING ITALIAN I

3, 3/0; WL23

Fundamentals of Italian, with an emphasis on developing the spoken and written language at the Novice-Mid level of proficiency, as well as on common educational, family, and geographically diverse features of Italian-speaking cultures. Offered every semester.

ITA 102 BEGINNING ITALIAN II

3, 3/0; WL23

Prerequisite: ITA 101 or equivalent. Fundamentals of Italian, with an emphasis on developing the spoken and written language at the Novice-high level of proficiency, as well as on common health, sports, leisure, and culinary features of Italian-speaking cultures. Offered every semester.

ITA 201 INTERMEDIATE ITALIAN I

3, 3/0

Prerequisite: ITA 102. Further development of basic skills with emphasis on listening, reading, speaking and writing. Offered occasionally.

ITA 202 INTERMEDIATE ITALIAN II

3, 3/0

Prerequisite: ITA 201. Continuation of ITA 201. Offered occasionally.

ITA 301 ITALIAN CONVERSATION AND COMPOSITION

3, 3/0

Prerequisite: ITA 202. Practice in written and spoken Italian. Offered occasionally.

ITA 302 ITALIAN CONVERSATION AND COMPOSITION

3, 3/0

Prerequisite: ITA 202. Practice in written and spoken Italian. Offered occasionally.

ITA 306 CONTEMPORARY ITALIAN CIVILIZATION

3, 3/0

Prerequisite: If offered in English, none; if offered in Italian, ITA 202 or equivalent. Cultural, intellectual, and social developments in Italy, past and present. Offered in English or Italian, as noted in the master schedule. When in English, this course may not be applied to the Italian minor. Offered occasionally.

ITA 307 SURVEY OF ITALIAN LITERATURE

3, 3/0

Prerequisite: ITA 202. Readings and discussions of major works from the origins through the cinquecento. Offered occasionally.

ITA 308 SURVEY OF ITALIAN LITERATURE

3, 3/0

Prerequisite: ITA 202. Readings and discussions of major works from the seicento to the ottocento. Offered occasionally.

ITA 410 MODERN ITALIAN LITERATURE

3, 3/0

Prerequisite: One upper-division Italian course. Readings and discussions of representative novels and short stories of the twentieth century. Offered occasionally.

ITA 450 DIRECTED READINGS I

3, 3/0

Prerequisite: Permission of instructor. Variable topics. Offered occasionally.

ITA 451 DIRECTED READINGS II

3, 3/0

Prerequisite: Permission of instructor. Variable topics. Offered occasionally.

ITA 499 INDEPENDENT STUDY

3, 0/0

Offered every semester.

Modern and Classical Languages (MCL)

MCL 100 ITALIAN CINEMA I

3, 3/0

Masterpieces of Italian cinema 1940-1970s. Taught in English. Offered fall only.

MCL 110 INTRO FRENCH CINEMA

3, 3/0

Taught in English. Introduction to the history and key movements, directors, cinematographers, films, and actors of the French cinema, as well as the social and literary conditions that shaped and informed them, from the 19th century to the post-WWII era. Offered occasionally.

MCL 189 TOPICS COURSE

1-9, 0/0

MCL 200 ITALIAN CINEMA II

3, 3/0

Prerequisites: CWP 102 or instructor permission. Exploration of masterpieces of Italian cinema from the 1970s to the present through the lens of the social and psychological implications of the industrial and post-industrial periods. Offered every spring.

MCL 205 LANGUAGE, DICTION AND SOCIETY

3, 3/0

The role of language perception in society; focus on how accent and pronunciation shape societal opinions of speakers, with respect to race, gender, socioeconomic standing, and other factors. Offered occasionally.

MCL 210 ITALIAN-AMERICANS: LITERATURE AND SOCIETY

3, 0/0

The Italian experience in the United States as seen through works of fiction and non-fiction. Offered occasionally.

MCL 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

MCL 310 FRENCH CINEMA II

3, 3/0

Prerequisites: CWP 102. Taught in English. Development of French cinema from post-WW II Neorealism and poetic realism to cinema d'auteur, achievements of its major directors, influence of French culture on cinema. Offered annually.

MCL 337 GREEK AND ROMAN MYTHOLOGY

3, 3/0

Prerequisite: One college-level literature course. Stories of the gods, goddesses, and heroes of Greece and Rome as presented in Greek and Roman literature. Emphasis upon determining possible origins and meanings of the myths studied. Offered annually.

MCL 338 INTRODUCTION TO CLASSICAL GREEK DRAMA

3, 3/0

Prerequisite: One literature course. Origin of European drama as a distinct literary form. Characteristics of Greek tragedy and theatrical conventions. Study of works by major playwrights, with emphasis on cultural patterns of the time.

Equivalent Course: FLA 338

MCL 346 WOMEN IN FOREIGN LITERATURE

3, 3/0

Prerequisite: A basic literature course at the college level or permission of instructor. An examination of the contributions of women writers and of the portrayal of women as literary characters by male and female writers in one or more foreign literature. Emphasis on authors, eras, topics, and literature varies with instructors. Offered occasionally.

MCL 370 INTRODUCTION TO COMMUNITY INTERPRETING AND TRANSLATION

3, 3/0

Prerequisite: SPA 301 or equivalent. Taught in English. Overview of concepts and skills in community interpreting and translation. Students will also develop critical awareness of standard use of English and a second language. Offered alternate years.

MCL 389 TOPIC COURSE

3, 0/0

Current advanced topics in modern and classical languages. Offered occasionally.

MCL 488 INTERNSHIP

1-15, 0/0

Prerequisite: Upper-division status and permission of instructor and department chair. Overall 2.5 GPA and 2.5 GPA in upper-division courses in specific language area. Guided and supervised field experiences (experiential learning) of degree programs. Supervised on-site activities for qualified students; training sessions, seminars and reports. Offered every semester.

MCL 495 SPECIAL PROJECT

3, 0/0

Prerequisite: Permission of instructor. Offered every semester.

MCL 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisite: Permission of instructor. Offered every semester.

Spanish (SPA)

SPA 101 BEGINNING SPANISH I

3, 3/0; WL23

Fundamentals of Spanish, with an emphasis on developing the spoken and written language at the Novice-Mid level of proficiency, as well as on common educational, family, and geographically diverse features of Spanish-speaking cultures. Offered every semester.

SPA 102 BEGINNING SPANISH II

3, 3/0; WL23

Prerequisite: SPA 101 or equivalent. Fundamentals of Spanish, with an emphasis on developing the spoken and written language at the Novice-high level of proficiency, as well as on common health, sports, leisure, and culinary features of Spanish-speaking cultures. Offered every semester. Offered Every Semester.

SPA 189 TOPIC COURSE

1-3, 0/0

Current topics in Spanish. Offered occasionally.

SPA 201 INTERMEDIATE SPANISH I

3, 3/0; WL23

Prerequisite: SPA 102 or equivalent. Spanish communication in various time frames explored through the traditions, work, and leisure activities of Spanish-speaking cultures. Emphasis on transitioning from Novice-High to Intermediate-Low proficiency. Offered every semester.

SPA 202 INTERMEDIATE SPANISH II

3, 3/0; WL23

Prerequisite: SPA 201 or equivalent. Continuation of SPA 201. Offered every fall.

SPA 203 PROFESSIONAL SPANISH I

3, 3/0

Prerequisites: SPA102 or equivalent. Taught in Spanish. Intermediate-Low-level-targeted study of common oral and written interactions in the Spanish workplace, with a focus on basic proficiency in common professional contexts. Offered occasionally.

SPA 204 PROFESSIONAL SPANISH II

3, 3/0

Prerequisites: SPA 201 or SPA 203. Taught in Spanish. Intermediate-Mid-level-targeted study of Spanish with a focus on proficiency in a diversity of professional and regional contexts. Offered every spring.

SPA 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

SPA 300 THE CIVILIZATION OF LATIN AMERICA

3, 0/0

Prerequisite: SPA 302. Taught in English. Cultural diversity of the Latin American people, with emphasis on their achievements, customs, and ways of life as affected by geographic, historical, political, and economic factors. Offered occasionally.

SPA 301 INTRODUCTION TO HISPANIC CULTURES

3, 3/0; IN23, RE23

Prerequisite: SPA 202 or SPA 204. Intermediate-High-level study of the Spanish language through exploration of Spanish-speaking cultures. Taught in Spanish. Offered every spring.

SPA 302 INTRODUCTION TO HISPANIC MEDIA

3, 3/0

Prerequisites: SPA301 or equivalent. Advanced-Low-targeted study of the Spanish language through exploration of Spanish-speaking cultures. Taught in Spanish. Offered every spring.

SPA 303 INTRODUCTION TO READING HISPANIC LITERATURE

3, 3/3

Prerequisites: SPA 202 or SPA 204. Introduction to the reading of literature written in Spanish, from both Spain and Latin America. Practice in reading and analyzing literary texts. Taught in Spanish. Offered alternate years.

SPA 304 SPANISH FOR SPANISH SPEAKERS

3, 3/0

Prerequisites: Placement test for Spanish speakers. An overview of those aspects of Spanish grammar that will enhance bilingual students' effectiveness in oral and written communication in Spanish. Special attention will be given to Anglicisms. Offered occasionally.

SPA 305 SPANISH PHONETICS

3, 0/0

Prerequisites: SPA 301 and SPA 302. The speech sounds of Spanish. Comprehension and pronunciation difficulties caused by differences in the sound systems of English and Spanish. Exercises aimed at improvement of pronunciation and intonation. Offered occasionally.

SPA 306 CIVILIZATION AND CULTURES OF SPAIN

3, 3/0

Prerequisites: SPA 202 or SPA 204. Taught in Spanish. Cultural diversity of the Spanish people. Their achievements, customs, and way of life as affected by geographic, historical, political, and economic factors. Offered alternate years.

SPA 307 SPANISH AUTHORS PRE-1800

3, 3/0

Prerequisites: SPA 301. Taught in Spanish. Overview of representative prose, poetry and theatrical works by authors from Spain from the eleventh through eighteenth centuries, studied in historical and broad artistic context. Offered occasionally.

SPA 308 SPANISH AUTHORS 1800-PRESENT

3, 3/0

Prerequisites: SPA 301. Taught in Spanish. Overview of representative prose, poetry and theatrical works by authors from 19th century Spain to the present, studied in historical and broad artistic context. Offered occasionally.

SPA 309 CULTURES AND CIVILIZATION OF LATIN AMERICA

3, 3/0

Prerequisites: SPA 202 or SPA 204. Taught in Spanish. Cultural diversity of the Latin American people, with emphasis on their achievements, customs and ways of life as affected by geographic, historical, political, and economic factors. Offered alternate years.

SPA 310 SPANISH AMERICAN AUTHORS: 1492 TO 1810

3, 3/0

Prerequisite: SPA 301. Taught in Spanish. Literature-centered overview of representative prose and poetry and essays by authors from Spanish America from the late fifteenth through early nineteenth centuries, studied in historical and broad artistic context. Offered occasionally.

SPA 311 SPANISH AMERICAN AUTHORS 1810S-PRESENT

3, 3/0

Prerequisite: SPA 301. Literature-centered overview of representative prose and poetry and essays by authors from Latin America from the nineteenth through the present, studied in historical and broad artistic context. Offered occasionally.

SPA 317 BUSINESS SPANISH

3, 3/0

Prerequisite: SPA 301 or equivalent. Introduction to Spanish commercial language. Extensive practice in translating and composing Spanish business communiqués. Offered occasionally.

SPA 321 ISSUES AND THEMES IN CONTEMPORARY HISPANIC CULTURES

3, 3/3

Prerequisites: SPA 302 or equivalent. Taught in Spanish. Development and practice of Spanish language through exploration of current issues facing Latin America and Spain. Offered occasionally.

SPA 389 TOPICS COURSE

3, 0/0

Current advanced topics in Spanish. Offered occasionally.

SPA 397 LITERACY FOR SPANISH TEACHERS

3, 3/3

Prerequisites: SPA 301. Emphasis on the promotion of literacy skills in Spanish instruction. Offered occasionally.

Equivalent Course: SPA 410

SPA 398 SPANISH FOR HEALTH AND SOCIAL SERVICE PROFESSIONS

3, 3/0

Prerequisite: SPA 202 or SPA 204. Taught in Spanish. Overview of key literacies and linguistic features of Spanish used in a range of medical and social service contexts. Offered alternate years.

SPA 399 SPANISH FOR THE LEGAL PROFESSIONS

3, 3/0

Prerequisite: SPA 202 or SPA 204. Taught in Spanish. Overview of comparative law related to differences between legal systems in US and Spanish-speaking countries, including key literacies and linguistic features of Spanish pertaining to US penal and civil law. Offered alternate years.

SPA 401 SPANISH FOR SPANISH TEACHING

3, 3/0

Prerequisites: Must be officially admitted to the Spanish Education BS or Post-Baccalaureate 7-12 Spanish Certification Program. Survey of classroom use of Spanish and professional literature on Spanish pedagogy. Offered occasionally.

SPA 402 SPANISH DRAMA OF THE GOLDEN AGE

3, 3/0

Prerequisite: SPA 307. Prelopistas and the works of Lope de Vega, Tirso de Molina, Juan Ruiz, de Alarcson, and others. Offered occasionally.

SPA 403 SPANISH COURT INTERPRETING

3, 3/0

Prerequisites: MCL 370, SPA 399 and a minimum of advanced-low proficiency in English and Spanish (American Council on the Teaching of Foreign Languages). Taught in Spanish. Builds on consecutive and simultaneous interpreting skills learned in MCL 370, with a focus on fundamental knowledge, skills, and dispositions related to Spanish court interpreting. Offered alternated years..

SPA 404 CERVANTES

3, 3/0

Prerequisite: SPA 307. Reading and analysis of Don Quixote or the Novelas Exemplares. Offered alternate years.

SPA 407 SPANISH COURT INTERPRETING PRACTICUM

3, 1/0

Prerequisites: MCL 370, SPA 403 and advanced-low proficiency in English and Spanish according to the ACTFL scale (American Council on the Teaching of Foreign Languages). Taught in Spanish. Supervised legal interpreting and translation, focused on fostering habits of critical self-reflection required to successfully pass the NY Unified Court System Interpreting Exam. Some emphasis on improvement in translation of legal texts from Spanish to English. Offered occasionally.

SPA 408 TWENTIETH-CENTURY SPANISH LITERATURE

3, 3/0

Prerequisite: SPA 308. Appreciation, analysis, and criticism of major trends in the development of Spanish poetry and theater of the twentieth century. Offered occasionally.

SPA 410 LITERACY FOR SPANISH TEACHERS

3, 3/3

Prerequisites: SPA 301. Emphasis on the promotion of literacy skills in Spanish instruction. Offered occasionally.

Equivalent Course: SPA 397

SPA 415 ADVANCED GRAMMAR AND COMPOSITION

3, 3/0

Prerequisites: SPA 301 and SPA 302. Elements of stylistics and selected grammar topics. Special attention given to common errors of English speakers. Offered alternate years.

Equivalent Course: SPA 421

SPA 416 ADVANCED CONVERSATION

3, 3/0

Prerequisite: SPA 415 and upper-division status, or permission of instructor. Development of speaking and aural comprehension at the advanced level. Required for secondary education majors. Offered occasionally.

SPA 421 STRUCTURE OF MODERN SPANISH

3, 0/0; IN23, RE23

Prerequisites: SPA302 or equivalent. Taught in Spanish. A thorough analysis of Spanish linguistics, including its diachronic, phonemic, phonological, morphosyntactic and sociopragmatic aspects. Targeted toward the American Council on the Teaching of Foreign Languages (ACTFL) Advanced-Mid-level. Offered occasionally.

Equivalent Course: SPA 415

SPA 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

SPA 496 SEMINAR I

3, 3/0

Prerequisite: Permission of instructor. Topic chosen by instructor. Offered occasionally.

SPA 497 SEMINAR II

3, 3/0

Prerequisite: Permission of instructor. Topic chosen by instructor. Offered occasionally.

SPA 499 INDEPENDENT STUDY

3, 0/0

Offered occasionally.

Music (DMP, MUS)

Digital Music Production (DMP)

DMP 221 INTRODUCTION TO SOUND RECORDING AND REINFORCEMENT

3, 3/0

Prerequisite: Instructor permission. Introduction to the history, technology, and future of analog and digital audio systems and their application. The physics of sound and the art and science of live sound reinforcement and recording including acoustics, microphone selection and placement, signal processing, mixing, loudspeaker design, editing, digital audio workstation software, MIDI, and sound system design for live venues. Offered fall only.

DMP 222 MUSIC BUSINESS

3, 3/0

An introduction to the fundamental aspects of the music business: music publishing, copyright, artist management, concert promotion, contracts, and career development. Offered annually.

DMP 250 FUNDAMENTALS OF MUSIC PRODUCTION

3, 3/0

Seminal concepts in digital music production central to the use of MIDI (Musical Instrument Digital Interface) hardware and software, and digital audio. Hands-on learning and operation of fundamental electronic music hardware used for audio production. Introduction to audio software applications for music sequencing, audio editing and audio mixing. Offered every fall.

DMP 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

DMP 321 RECORDING TECHNIQUES

3, 3/0

Prerequisite: DMP 221 or instructor permission. Examination of electronic audio systems and their application, including the art and science of sound recording and reinforcement of instrumental and vocal music in live and studio situations. Topics include practical applications of microphone selection and placement, signal processing, mixing, amplification, loudspeaker types, digital audio editing software, MIDI, and sound system design for live venues. Offered spring only.

DMP 331 INTERMEDIATE RECORDING

3, 3/0

Prerequisites: Acceptance into DMP minor, DMP 321. A hands-on approach to digital audio recording and production techniques including recording, microphone techniques, editing, and mixing using professional recording software. Student led recording sessions. Offered fall only.

DMP 332 THEORY AND ANALYSIS OF POPULAR MUSIC I

3, 3/0

Prerequisites: MUS 231. The first course in a sequence addressing theoretical concepts, formal design, and compositional techniques of music rooted in 17th and 18th century western art music, learned through the study of their influence and the examination of their application in tonal and modal popular music and jazz repertoire. Offered every fall.

DMP 333 THEORY AND ANALYSIS OF POPULAR MUSIC II

3, 3/0

Prerequisites: MUS 332. Theory and analysis of compositional strategies, musical styles and aesthetic trends rooted in 19th and 20th century western art music, learned through the study of their influence and the examination of their application in tonal and modal popular music and jazz repertoire. Offered fall semester only.

DMP 340 HISTORY OF ELECTRONIC MUSIC

3, 3/0

Prerequisite: Majors and minors only. An introduction to the history, development, performance practice, and aesthetics of music involving electronics and computers. The course covers the origins and evolution of the most relevant techniques and technologies utilized by producers of electronic music, and the ways in which these tools have influenced musical aesthetics. Offered Alternating Years

DMP 341 ADVANCED RECORDING

3, 3/0

Prerequisites: Acceptance into DMP Minor, DMP 331. In-depth study of recording techniques and tools used in the modern recording industry, advanced mixing techniques used in commercial music, critical listening and music analysis from contemporary recorded music. Student recording, performance and engineering. Offered spring only.

DMP 350 ELECTRONIC MUSIC COMPOSITION I

3, 2/2

Prerequisite: Acceptance into DMP Minor. The creative use of sound and music through the exploration of technology, history, theory, and practice of electronic music since the 1920s. Provides students with a wide range of technical, theoretical, and aesthetic concepts aimed at developing and strengthening music composition skills. The technological nature of the class encompasses the learning of fundamental software tools while favoring a critical-thinking approach to the unique expressive power of electronic music composition. Offered fall only.

DMP 351 ELECTRONIC MUSIC COMPOSITION II

3, 3/0

Prerequisites: Acceptance into DMP Minor, DMP 350. Focus on the creative use of sound, music and video through the exploration of key software tools for electronic music composition, music performance, mixed media, and sound installations. Advanced technical and theoretical knowledge of electronic music while developing music composition skills. Offered annually.

DMP 360 DIGITAL MUSIC ENSEMBLE

1, 3/0

Prerequisite: Instructor Permission. Electronic music performance in an ensemble setting with analog and digital musical instruments, portable computing devices and custom digital controllers. Emphasis on new approaches and skills for the performance and composition of electronic and computer music. Offered every semester.

DMP 361 SYNTHESIZER ORCHESTRA

1, 3/0

Prerequisite: DMP 352 or Instructor permission. Perform a wide range of electronic music repertoire in an interactive ensemble setting, using analog and digital hardware synthesizers. Explore new sonic landscapes through different audio synthesis and audio processing techniques. Offered every semester.

DMP 389 TOPIC COURSE

1-3, 0/0

Course offered periodically on various topics related to Digital Music Production, Digital Music Composition, Audio Recording, Sound Mixing, Audio Production or other areas of study related to Digital Music. Offered occasionally.

DMP 430 GAME AUDIO

3, 3/0

Prerequisite: DMP 352. Create and design audio and music for video games, gaming applications and interactive media. Study audio gaming engines in adaptive and generative music systems. Examine different audio middleware tools and their integration with software gaming platforms. Gain hands-on skills for the pre-production and post-production stages of game audio production. Offered occasionally.

DMP 432 LIVE SOUND

3, 1.5/1.5

Prerequisites: DMP 341. Advanced course in live sound reinforcement and system design and optimization, based on the physical parameters of the performance venue. Creative technical strategies to enhance musical performance in live venues. Offered spring semester only.

DMP 491 CAPSTONE IN DIGITAL MUSIC PRODUCTION

1-3, 0/0

Prerequisite: DMP 350 and permission of the instructor. Independent capstone project under the direction of an instructor.

DMP 495 SPECIAL PROJECT

1-3, 0/0

Offered every semester.

DMP 499 INDEPENDENT STUDY

3, 0/0

Music (MUS)

MUS 110 ACCOMPANIST COACHING SESSION

1, 0/2

Corequisites: MUS 171, 173, 271, 273, 371, 373, 471, or 473 applied lessons. Provides students enrolled in the applied music lesson sequence the opportunity to meet and rehearse privately with a staff piano accompanist and have an accompanist present in their applied lesson. Emphasis on memorization techniques, solo and ensemble performance techniques, and musical interpretation. Includes solo or chamber repertoire currently under preparation for collegium, jury, or recital performance. Offered every semester.

MUS 111 ACCOMPANYING FOR PIANISTS

1, 1/0

Prerequisite: Music Majors only. For piano students who wish to gain chamber experience. Students assigned to a vocalist, instrumentalist, or ensemble and will be required to attend weekly applied lessons or rehearsals as well as a coaching/masterclass session with an assigned coach. Offered every semester.

MUS 112 APPLIED MUSIC

1, 1/0

Prerequisites: Permission of instructor. Previous performance experience; audition and ensemble participation required. Individual lessons for voice or instrument. Private lesson fee possible. Offered occasionally.

MUS 113 BRASS TECHNIQUES

1, 1/0

Prerequisite: Music education majors. Pre-professional training in performing and teaching methodologies for trumpet, horn, trombone, baritone, and tuba. Offered every semester.

MUS 114 PERCUSSION TECHNIQUES

1, 1/0

Prerequisite: Music education majors. Pre-professional training in performing and teaching methodologies for percussion instruments. Offered every semester.

MUS 115 STRING TECHNIQUES

1, 1/0

Prerequisite: Music education majors. Pre-professional training in performing and teaching methodologies for violin, viola, violoncello, and contrabass. Offered every semester.

MUS 116 WOODWIND TECHNIQUES

1, 1/0

Prerequisite: Music education majors. Pre-professional training in performing and teaching methodologies for flute, clarinet, oboe, bassoon, and saxophone. Offered every semester.

MUS 119 VOCAL PEDAGOGY

1, 1/0

Pre-requisites: Majors only. A cooperative class in teaching voice for pre-music educators. Vocal process, and practical teaching will be examined, discussed, analyzed, and practiced. Repeatable. Offered every spring.

MUS 122 INTRODUCTION TO MUSIC STUDIES AND CAREERS

2, 2/0

Prerequisite: Majors only. Provides historical, philosophical, and practical foundations needed for a career in music. Experiences that integrate library, research, teacher observation and analysis, reading, and writing skills with regard to the profession will be utilized to assist students' exploration and confirmation of his or her decision to enter the field. Offered fall only.

MUS 123 CLASS VOICE FOR NON-MAJORS

1, 0/1

Co-requisite: MUS 335 BSC Chorale. Study and perform vocal music as a singer. Expand the student's knowledge of singing and sight singing. Offered every semester.

MUS 130 COMPREHENSIVE MUSICIANSHIP I

1, 3/0

Prerequisites: Majors only. Basic musicianship skills: music notation, rhythm, meter, melody, modes, scales, melodic intervals, harmonic structures; ear training, written theory, composition and performance. Offered every fall.

MUS 161 CLASS PIANO I

1, 0/2

Prerequisite: Acceptance into B.A. in Music or B.M. in Music Education. First in a sequence of four group piano classes for music majors only. Emphasis on development of healthy piano technique, general musicianship skills and effective music learning strategies. Sight Reading, Chord Progressions, Melody Harmonization, Scales, Improvisation, Repertoire. Offered every fall.

MUS 162 CLASS PIANO II

1, 0/2

Prerequisite: MUS 161 with minimum of "C" or audition. Second in a sequence of four group piano classes for music majors only. Emphasis on development of healthy piano technique, general musicianship skills and effective music learning strategies. Sight Reading, Chord Progressions, Melody Harmonization, Scales, Improvisation, Repertoire. Offered every spring.

MUS 167 CLASS GUITAR I

1, 0/2

First in a sequence of two group guitar classes for both music and music education majors. Emphasis placed on the development of healthy guitar techniques, general musicianship skills and effective music learning strategies. Topics to include sight reading, chords and chord progressions, scales, tunes, and basic improvisation. Offered every fall.

MUS 171 APPLIED MUSIC I

1, 1/0

Prerequisite: Acceptance into B.A. in Music or B.M. in Music Education degree program and successful performance audition. Individual applied lessons for voice or instrument. Required for music majors. Applied lesson fee, collegium performance and concert attendance required. Offered every semester.

MUS 173 APPLIED MUSIC II

1, 1/0

Prerequisite: Completion of MUS 171 Applied Music with minimum of C-. Individual applied lessons for voice or instrument. Required for music majors. Applied lesson fee, collegium performance and concert attendance required. Offered every semester.

MUS 189 TOPIC COURSE

1-9, 0/1

Course offered periodically on various topics related to Music, Music Education, Music Performance, Music Pedagogy, Music History, Music Theory, or other areas of study related to Music. Offered as needed.

MUS 201 SURVEY OF WESTERN MUSIC HISTORY

3, 3/0; AR23

Introduction to music from the Middle Ages to the present; study of forms and styles, composers and performers, cultural and social backgrounds, and parallel developments in other arts. Lecturer and listening assignments. Concert attendance required. Offered every semester and summer.

MUS 206 FOUNDATIONS OF AMERICAN POPULAR MUSIC 1900-1950

3, 3/0; DI23

Prerequisite: CWP 102. This survey course studies the historical developments that helped formulate today's popular music, including the roots of blues, jazz, and rock music in America. Offered every semester.

MUS 208 SURVEY OF WORLD MUSIC CULTURES

3, 3/0; AR23

Survey of representative art and popular music cultures of Africa, Asia, the Middle East, and Latin America. Lectures and listening assignments. Concert attendance required. Offered every semester and summer.

Equivalent Courses: MUS 311, MUS 440

MUS 209 SUB-SAHARAN AFRICAN MUSIC AND CULTURES

3, 3/0; GA23

A survey of history, culture, and current affairs of Sub-Saharan Africa, using music as the specific lens through which to view the multifaceted cultures of this diverse continent. Offered every semester.

Equivalent Course: AAS 209

MUS 210 MUSIC THEORY FOR NON-MAJORS

3, 3/0; AR23

Music notation, aural and written. Scales, intervals, triads, seventh chords, rhythms, simple and compound meters, elementary ear-training, dictation, analysis, and composition. Offered every semester.

MUS 215 CARIBBEAN MUSIC AND CULTURES

3, 3/0

A survey of Caribbean history and current affairs, using music as the specific lens through which to view and explore the multifaceted cultures of this diverse region. Offered every semester.

MUS 218 AURAL PERCEPTION I

1, 0/3

Prerequisite: Acceptance into BA in Music or MUS.B in Music Education program. A sight-singing and ear-training laboratory course intended for music majors with no prior training in either. Required for music majors. Offered every fall.

MUS 219 AURAL PERCEPTION II

1, 0/3

Prerequisite: MUS 218. A sight-singing and ear-training laboratory course intended for music majors. Required for music majors. Offered every spring.

MUS 220 TECHNOLOGY APPLICATIONS FOR MUSIC EDUCATION

2, 2/0

Students gain knowledge of current technology applications suitable for music instruction, including administrative applications, software for notation and composition, and MIDI-based sequencing, as well as teaching methods and strategies for using technology in music classrooms and ensembles; incorporates extensive hands-on activities. Offered every spring.

MUS 224 MUSIC AND POLITICAL ACTION

3, 3/0

Prerequisites: CWP 101 and CWP 102. Chronological overview of significant political, social, military, and religious events and along with the music associated with those important events. Students will be introduced to various composers, musical styles, musical forms and musical selections as they directly relate to historically significant circumstances, events, and movements within World and American History. While previous musical experience is helpful, it is not required. Offered every semester.

MUS 230 MUSIC THEORY I

3, 3/0

Prerequisite: Music Majors only. Corequisite: MUS 218. Fundamentals of music, including notation, scales, modes, tonality, key signatures, intervals, basic chords, basic harmony, voice leading, melodic structures, and the general stylistic features of the various epochs of Western music. Required for Music Majors. Offered every fall.

MUS 231 MUSIC THEORY II

3, 3/0

Prerequisites: MUS 230 and MUS 218. Corequisite: MUS 219. Continuation of the fundamentals of music, with emphasis on harmony, voice leading, and simple formal structures within the contexts of the various historical periods of Western music. Required for music majors. Offered every spring.

MUS 261 CLASS PIANO III

1, 0/2

Prerequisite: MUS 162 with minimum of "C" or audition. Third in a sequence of four group piano classes for music majors only. Expansion of healthy piano technique, general musicianship skills and effective music learning strategies. Sight Reading, Chord Progressions, Melody Harmonization, Open Score Reading, Scales, Melody and Harmonic Improvisation, Repertoire. Offered every fall.

MUS 262 CLASS PIANO IV

1, 0/2

Prerequisite: MUS 261 with minimum of "C" or audition. Fourth in a sequence of four group piano classes for music majors only. Expansion of healthy piano technique, general musicianship skills and effective music learning strategies. Sight Reading, Chord Progressions, Melody Harmonization, Open-Score Reading, Scales, Melody and Harmonic Improvisation, Repertoire. Offered every spring.

MUS 267 CLASS GUITAR II

1, 0/1

Prerequisite: MUS 167. Second in a sequence of two group guitar classes for both music and music education majors as well as non-majors. Emphasis on more advanced concepts including barre chords, hand dexterity, expanded chords, upper fingerboard positions and re-voicing. Students will sight-read and perform advanced melodic and chord progressions. Offered every spring.

MUS 271 APPLIED MUSIC III

1, 1/0

Prerequisite: Completion of MUS 173 with minimum of C-. Individual applied lessons for voice or instrument. Required for music majors. Applied lesson fee, collegium performance and concert attendance required. Offered every semester.

MUS 273 APPLIED MUSIC IV

1, 1/0

Prerequisite: Completion of MUS 271 with minimum of C-. Individual applied lessons for voice or instrument. Required for music majors. Applied lesson fee, collegium performance and concert attendance required. Offered every semester.

MUS 290 PHILHARMONIA ORCHESTRA

1, 1/0

Prerequisite: Audition. Participation in the Buffalo State Philharmonia Orchestra, a college-community ensemble composed of qualified Buffalo State student musicians and experienced community musicians. The orchestra serves as the principal vehicle for increasing students' awareness of symphonic repertoire, orchestral excerpts, and performance protocol as directly related to an

orchestral ensemble. Repertoire is planned and organized to provide students with a diverse exposure to important classical, pops, and seasonal programming. May be repeated. Offered every semester.

Equivalent Course: MUS 390

MUS 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

MUS 302 MUSIC HISTORY: ANTIQUITY THROUGH BAROQUE

3, 3/0

Prerequisite: One theory course or permission of instructor. Listening, identification, analysis, and study of musicological and sociohistorical trends in the medieval, Renaissance, and Baroque style periods. Offered every fall.

MUS 303 MUSIC HISTORY: CLASSIC THROUGH MODERN

3, 3/0; IN23, RE23

Prerequisites: MUS 302 or instructor permission. Study of musical styles, composers, and genres of the Classical, Romantic, and Modern eras; cultural/social contexts and parallel interdisciplinary developments. Required for music majors. Offered annually.

MUS 311 SURVEY OF WORLD MUSIC CULTURES

3, 3/0; AR23

Prerequisite: CWP 102. Survey of representative folk, art, and popular music cultures of Africa, Asia, the Middle East, and Latin America. Lectures and listening assignments. Concert attendance required. Offered every semester.

Equivalent Courses: MUS 208, MUS 440

MUS 313 CHAMBER CHOIR

1, 1/0

Prerequisite: Audition. A select vocal ensemble of mixed voices that studies and performs art music from the medieval through modern genres. Offered every semester.

MUS 314 WIND ENSEMBLE

1, 1/0

Prerequisite: Audition for majors and non-majors. Rehearsals and performances include historical and contemporary wind and percussion literature from around the world as well as transcriptions and arrangements of masterpieces from the Renaissance to the present. May be repeated. Offered every semester

MUS 318 AURAL PERCEPTION III

1, 0/3

Prerequisite: MUS 219. A sight-singing and ear-training laboratory course intended for music majors. Required for music majors. Offered every fall.

MUS 319 AURAL PERCEPTION IV

1, 0/3

Prerequisites: MUS 318. A sight-singing and ear-training laboratory course intended for music majors. Required for music majors. Offered every spring.

MUS 321 COMPOSITION, IMPROVISATION AND ARRANGING

2, 3/0

Prerequisite: MUS 331. Class instruction and supervised training in basic instrumental and vocal improvisation, with study of associated notation styles for composition and group performance. Introduction to arranging and standard notation for choir, band, and orchestra. Offered every semester.

MUS 322 INSTRUMENTAL CONDUCTING

2, 2/0

Prerequisite: Upper-level music major or equivalent. Introduction to the musical and technical aspects of directing and developing an instrumental ensemble. Use of baton, score reading, and observation. Ensemble work. Offered every spring.

MUS 323 VOCAL JAZZ ENSEMBLE

1, 0/2

Prerequisites: Prerequisites: Audition for majors and non-majors. Study and perform vocal jazz music within an ensemble of 12-16 auditioned musicians. Traditional approached and skills to the performance and study of vocal jazz music will be developed while significantly expanding the student's knowledge of vocal jazz repertoire, performance practice and vocal techniques. May be repeated. Offered every semester."

MUS 326 JAZZ ENSEMBLE

1-12, 0/0

Prerequisite: Audition. Training and supervised performance in jazz and dance band combination. May be repeated. Offered every semester.

MUS 330 MUSIC THEORY III

3, 3/0

Prerequisite: MUS 231. Corequisite: MUS 318. Fundamental music theory concepts, formal design and compositional techniques of the tonal language developed between the 17th and 19th century in western art music. Analysis of erudite music repertoire and its influence on contemporary works of pop and jazz. Offered every fall.

MUS 331 MUSIC THEORY IV

3, 3/3

Prerequisites: MUS 318 and MUS 330. Corequisite: MUS 319. Theory and analysis of compositional strategies, musical styles and aesthetic trends rooted in late 19th, 20th and 21st century western art music. Analysis of seminal 20th century music repertoire, and its influence on works of pop, jazz and film music. Offered every spring.

MUS 332 JAZZ CHAMBER MUSIC

1, 1/0

Prerequisite: Instructor Permission. Study and perform jazz music within an ensemble of 4-9 musicians. Small group jazz performance practice and improvisational skills will be developed while significantly expanding the student's knowledge of standard jazz and American songbook repertoire. Offered every semester.

MUS 333 CHORAL CONDUCTING

2, 2/0

Prerequisites: MUS 219 and MUS 119. Corequisite: MUS 335 or MUS 313. Fundamentals of rehearsing, developing, and conducting choirs for students with choral and vocal background. May require observation of off-site choral ensemble rehearsals and performances. Required for music education majors. Offered every fall.

MUS 334 PERCUSSION ENSEMBLE

1, 1/0

Prerequisite: Audition or permission of instructor. An exploration of sophisticated percussion literature by modern composers or transcriptions of other works for percussion instruments. The ensemble performs on standard percussion instruments, such as timpani, marimba, vibraphone, snare drum, tom toms, and other struck objects. May be repeated. Offered every semester.

MUS 335 BUFFALO STATE CHORALE

1, 0/2

Rehearsal and performance of representative choral music from a diverse repertoire including classical, pop, gospel, spirituals, jazz, folk, and show music. Presentation of the fundamentals of choral singing. May be repeated. Offered every semester.

MUS 337 STRING ENSEMBLE

1, 1/0

Prerequisite: Audition or permission of instructor. A performing ensemble surveying standard chamber music repertoire for string instruments, such as quartet, quintet, or piano trios. May be repeated. Offered every semester.

MUS 338 BRASS ENSEMBLE

1, 1/0

Prerequisite: Audition or permission of instructor. Chamber group consisting of trumpets, trombones, French horns, euphoniums, baritones and tubas. Explores body of chamber music written or transcribed for brass instruments. May be repeated. Offered every semester.

MUS 339 WOODWIND ENSEMBLE

1, 1/0

Prerequisite: Audition or permission of instructor. Chamber group consisting of combinations of woodwind instruments, including clarinet choir, flute quartet, saxophone quartet, mixed trios, quartets, quintets, or larger. Explores body of chamber music written or transcribed for woodwind instruments. May be repeated. Offered every semester.

MUS 341 CHAMBER MUSIC FOR PIANISTS

1, 2/0

Prerequisites: Music majors only. For piano students who seek to gain experience working in small and large ensemble settings. Students will be assigned to a chamber or large ensemble, and must attend weekly rehearsals and coaching/master class sessions. Offered every semester.

MUS 342 VOCAL CHAMBER MUSIC

1, 1/0

Prerequisites: Instructor permission. Focusing on the performance practice, and musical/dramatic/poetic interpretation of vocal chamber music in a small ensemble setting. Offered every semester.

MUS 345 ELEMENTARY MUSIC METHODS

3, 3/0

Prerequisites: Permission of instructor; music education interview. Gain knowledge and skills in the areas of teaching methods and strategies for elementary music education; extensive hands-on and writing activities. Offered every fall.

MUS 346 FIELD EXPERIENCE IN ELEMENTARY MUSIC

1, 0/0

Corequisite: MUS 345. Observation and application of instructional procedures learned in MUS 345 through on-site participation in local schools. Offered fall only.

MUS 349 WEST AFRICAN DRUMMING ENSEMBLE

1, 1/0

Prerequisite: Instructor permission. Introduction to traditional West African rhythms on djembes, dundun drums, and iron bells. Students explore cultural contexts and learn to give and respond to rhythmic signals, learn to play different rhythms simultaneously, and learn culturally and rhythmically appropriate improvisation techniques. Offered every semester.
Equivalent Course: AAS 349

MUS 353 FIELD EXPERIENCE IN MUSIC FOR EXCEPTIONAL LEARNERS

1, 0/0

Corequisite: MUS 345. Observation and application of adaptations and instructional procedures appropriate for music with exceptional learners through on-site participation in local schools. Offered during J Term.

MUS 360 SECONDARY INSTRUMENTAL MUSIC METHODS

3, 3/0

Prerequisites: MUS 345, MUS 362. Knowledge and skills in the areas of teaching methods and strategies for secondary instrumental music education; includes extensive hands-on and writing activities. Offered every fall.

MUS 361 FIELD EXPERIENCE IN SECONDARY INSTRUMENTAL MUSIC

1, 0/0

Prerequisite: MUS 362 or permission of instructor. Corequisite: MUS 360. Observation and application of instructional procedures learned in MUS 360 through on-site participation in local schools. Offered fall only.

MUS 362 SECONDARY CHORAL METHODS

3, 3/0

Prerequisite: MUS 345 or permission of instructor. Corequisite: MUS 363. Gain knowledge and skills in the areas of teaching methods and strategies for secondary choral music education; extensive hands-on and writing activities. Offered every spring.

MUS 363 FIELD EXPERIENCE IN SECONDARY CHORAL MUSIC

1, 0/0

Prerequisite: MUS 345 or permission of instructor. Corequisite: MUS 362. Observation and application of instructional procedures learned in MUS 362 through on-site participation in local schools. Offered spring only.

MUS 364 FIELD EXPERIENCE IN COMMUNITY MUSIC

1, 0/0

Prerequisite: Instructor Permission. Develop pedagogical skill and knowledge through teaching in an after-school music program. Working closely with a mentor, students will gain valuable pre-service teaching experience as they prepare for student teaching and careers as music educators. Offered every spring.

MUS 365 INTRODUCTION TO EARLY CHILDHOOD MUSIC AND MOVEMENT

3, 2/0

Prerequisites: Instructor Permission. Exploring the methods used to guide young children's music and movement development within a wide variety of early childhood music education settings. Field placement activities that support course objectives are required, approximately 12-15 hours. Offered annually.

MUS 371 APPLIED MUSIC V

1-2, 1/0

Prerequisite: Completion of MUS 273 Applied Music with minimum of C-. Individual applied lessons for voice or instrument. Required for music majors. Applied lesson fee, collegium performance and concert attendance required. Offered every semester.

MUS 373 APPLIED MUSIC VI

1-2, 1/0

Prerequisite: MUS 371 with C- or above. Individual applied lessons for voice or instrument. Required for music majors. Applied lesson fee, collegium performance and concert attendance required. Offered every semester.

MUS 389 TOPIC COURSE

1-9, 0/0

Course offered periodically on various topics related to Music, Music Education, Music Performance, Music Pedagogy, Music History, Music Theory, or other areas of study related to Music. Offered as needed.

MUS 390 UNIVERSITY PHILHARMONIA

1, 0/2.5

Prerequisite: Audition required. The Philharmonia is a college/community orchestra comprised of qualified students and experienced community musicians. Students will participate in orchestral rehearsals and concert performances, gain knowledge of symphonic repertoire, and learn orchestral performance protocol. Offered every semester.

Equivalent Course: MUS 290

MUS 410 RECITAL ACCOMPANIST

1, 0/1

Co-requisites: MUS 110 and MUS 171,173,271,273,371,373,471, or 473 applied lessons. For students enrolled in the applied music lesson sequence and preparing for a recital. Meet and rehearse privately with a staff piano accompanist. Emphasis on preparation for performance, solo and ensemble performance techniques, and musical interpretation. Offered every semester.

MUS 422 SEMINAR IN MUSIC LEADERSHIP, MANAGEMENT, AND ADMINISTRATION

3, 3/0

Prerequisite: MUS 273. Seminar course in theoretical and applied concepts of leadership, management, and administration for musicians and music educators. Case studies, frameworks, and practical scenarios of music classrooms, orchestras, and community arts organizations will be presented, discussed, researched, and analyzed.

MUS 440 ETHNOMUSICOLOGY

3, 3/0

Prerequisites: MUS 302 and MUS 303 or instructor permission. Case studies, readings, lectures, audio examples, and hands-on class participation, with emphasis on theories and methodologies of world music study as an aspect of human culture; independent research and public presentation. Required for music majors. Offered annually.

Equivalent Courses: MUS 208, MUS 311

MUS 457 STUDENT TEACHING IN ELEMENTARY MUSIC

5, 0/0

Prerequisites: Successful completion of all music coursework, including 100 documented observation hours, the piano proficiency exam, the Music Department Student Teaching Application, and Criteria for Student Teaching. Corequisites: MUS 458 and MUS 460. Supervised full-time teaching internship for a half semester in an elementary school setting. Required culminating experience for music education majors seeking New York State certification. Offered every semester.

MUS 458 STUDENT TEACHING IN SECONDARY MUSIC

5, 0/0

Prerequisites: Successful completion of all music coursework, including 100 documented observation hours, the piano proficiency exam, the Music Department Student Teaching Application, and Criteria for Student Teaching. Corequisites: MUS 457 and MUS 460. Supervised full-time teaching internship for a half semester in a middle or high school setting. Required culminating experience for music education majors seeking New York State certification. Offered every semester.

MUS 460 STUDENT TEACHING SEMINAR

2, 2/0

Prerequisites: Permission of instructor. Corequisites: MUS 457 and MUS 458. Study of current issues in music education and the challenges of the beginning teaching experience. Students will participate in weekly discussions centered on such topics as music education philosophy in action; curriculum development and evaluation; assessment of musical behaviors; discipline (prevention and intervention); time management; and meeting state and national standards in music. Offered every semester.

MUS 471 APPLIED MUSIC VII

1-2, 1/0

Prerequisite: Completion of MUS 373 with minimum of C-. Individual applied lessons for voice or instrument. Required for music majors. Applied lesson fee, collegium performance and concert attendance required. Offered every semester.

MUS 473 APPLIED MUSIC III

1, 1/0

Prerequisite: Completion of MUS 471 with minimum of C-. Individual applied lessons for voice or instrument. Required for music majors. Applied lesson fee, collegium performance and concert attendance required. Offered every semester.

MUS 488 INTERNSHIP

1-6, 0/0

Prerequisites: Permission of Internship Coordinator; Minimum 2.5 GPA in Major, Minimum 2.0 GPA Overall. Guided and supervised exposure to professional artistic administration and/or operations through on-the-job work experience in an authorized administrative, business, or performance setting. Will write a written report of the work experience based on journal entries, and receive written evaluations from the Internship Site Supervisor and Internship Coordinator. Offered every semester.

MUS 491 CAPSTONE IN MUSIC

1-3, 0/0

Prerequisite: MUS 273 and permission of the instructor. Independent capstone project under the direction of an instructor.

MUS 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Permission of instructor. Required for B.A. music students in the final semester of study. For current music B.A. capstone guidelines, contact department. Offered every semester.

MUS 499 INDEPENDENT STUDY

3-12, 0/0

Offered every semester.

Physics

PHY 100 PHYSICS FOR NON-SCIENCE MAJORS

3, 3/0; NS23

A non-mathematical consideration of historical world views in physics and their relevance to society. May not be substituted for PHY 107, PHY 108, PHY 111, or PHY 112. Not open to physics majors. Offered every semester.

PHY 103 UNDERSTANDING SOUND

3, 2/2; NS23

The basics of sound, intended for non-science majors. Wave characteristics and behavior, applied to sonic phenomena. Interfaces of sound with humans and society (music, hearing, sound production and recording). Offered every semester.

PHY 104 PHYSICS FOR K-8 TEACHERS

3, 2/2; NS23

Prerequisite: Acceptance to Pre-K-8 teaching majors or pre-majors. High school algebra and writing. Nature of science, energy transfer, force interactions, systems, Newton's Laws, magnetic, gravitational, light, and thermal interactions, conservation of energy, and simple circuits as appropriate for teachers of K-8 science. Meets National Science Education Standards S (NRC) and the New York State Education Department (NYSED) learning standards for Math Science and Technology and elementary and intermediate physical standards (Standard 4). Inquiry-based classroom co-mingles laboratory with lecture. Offered every semester.

PHY 107 GENERAL PHYSICS I

4, 3/2; NS23

Algebra-based study of mechanics, measurement, kinematics, Newton's laws, gravity, conservation of energy and momentum, and rotation; laboratory. Offered every semester.

PHY 108 GENERAL PHYSICS II

4, 3/2

Prerequisite: PHY 107. Algebra-based study of electricity and magnetism: static electricity (including electricity fields and potential), current electricity and circuits, magnetism and electromagnetic interactions; laboratory. Offered every semester.

PHY 111 UNIVERSITY PHYSICS I

5, 4/2; NS23

Corequisites: MAT 161. Calculus-based treatment for science majors of particle motion, kinematics, mechanics, Newtonian dynamics, energy transformation, conservation laws of energy and momentum, gravitation and rotation; laboratory. Required for majors. Offered every semester.

PHY 112 UNIVERSITY PHYSICS II

5, 4/2

Prerequisite: PHY 111 or equivalent. Corequisites: MAT 162. Continuation of PHY 111. Calculus-based introduction to heat, electricity, magnetism, and optics; laboratory. Required for physics majors. Offered every fall.

PHY 189 TOPICS COURSE

1-3, 1/0

Offered occasionally.

PHY 213 UNIVERSITY PHYSICS III

3, 3/0

Prerequisites: PHY 108 or PHY 112. Continuation of PHY 112. A calculus-based introduction to wave motion, physical optics, interference and diffraction phenomena, thermodynamics, and the kinetic theory of gases. Offered in the fall semester.

PHY 214 OPTICS AND HEAT LABORATORY

1, 0/2

Prerequisites: PHY 108 or PHY 112. Performing basic physics experiments chosen from the areas of optics, heat, and thermodynamics. Students carry out experiments; acquire, analyze, and interpret experimental data; write lab reports in a standard scientific format. Offered annually each fall semester.

PHY 295 RESEARCH EXPERIENCE IN PHYSICS

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

PHY 304 OPTICS AND VISION FOR TEACHERS AND ARTISTS

3, 2/2

Prerequisites: Any college or high school introductory physics course; CWP 101; any first-year MAT or instructor permission. Phenomena of light, vision, color, and photography, as appropriate for teachers of science and visual arts majors. Meets the National Science Education Standards S (NRC) and the New York State Education Department (NYSED) learning standards for Math, Science and Technology and elementary and intermediate physical setting standards (Standard 4). Inquiry-based classroom co-mingles laboratory with lecture using handheld apparatus and demonstrations in the lecture theater and take-home laboratory activities using everyday materials. Can be used as a sequence with PHY 104. Offered occasionally.

PHY 305 MODERN PHYSICS I

3, 3/0; RE23

Prerequisites: PHY 213 and CHE 112 or instructor permission. Introduction to Special Relativity, the Bohr model of the atom, wave-particle duality, introduction to quantum mechanics, applications of quantum mechanics to the atoms. Offered in the spring semester each year.

PHY 306 MODERN PHYSICS II

3, 0/0

Prerequisites: PHY 305 or instructor permission. Continuation of PHY 305. Features of atomic spectra and their explanation in terms of magnetic properties; differences between classical and quantum statistical distributions and their origins; structural features of molecules; how properties of solids are determined by quantum statistics; properties of nuclei, including stability and different decay modes. Offered in the fall semester each year.

PHY 307 MODERN PHYSICS LABORATORY

2, 0/3; IN23

Prerequisite: PHY 305 (or corequisite) or instructor permission. Selected modern physics experiments in optics, atomic physics, electricity and magnetism, and nuclear physics. Students will acquire, analyze, and interpret the experimental data and write lab reports in a scientific format. Offered every fall semester.

PHY 308 OPTICS

3, 3/0

Prerequisites: PHY 108 or PHY 112 or equivalent. Fundamentals of geometrical and physical optics; the nature and propagation of light; Fraunhofer and Fresnel diffraction, polarization; single, double slit and grating diffraction, lasers, and holography. Offered occasionally.

PHY 310 COMPUTATIONAL PHYSICS LABORATORY

3, 1/4

Prerequisites: PHY 107 or PHY111. Introduction to basic computational techniques using physics material from intermediate-level courses. Required for physics majors. Offered fall only.

PHY 315 HEAT AND THERMODYNAMICS

3, 3/0

Prerequisites: PHY 108 or PHY 112 or equivalent. First, second laws; entropy; chemical potential; enthalpy; free energy; Gibbs function; Maxwell relations; phase transitions; and statistical mechanics of classical and quantum distributions. Offered occasionally.

PHY 320 INTRODUCTION TO THEORETICAL PHYSICS

3, 3/0

Prerequisites: PHY 108 and MAT 127 or PHY 112 or Instructor permission. Introduction to advanced mathematical applications in physics: complex numbers, linear algebra, eigenvalue problems, multiple integrals, vector analysis, Fourier series and transforms, differential equations, and Legendre polynomials. Required for physics majors. Offered spring only.

PHY 323 STATICS

3, 3/0

Prerequisites: PHY 112. Application of mechanics to the study of static equilibrium of rigid and elastic bodies. Includes composition and resolution of forces; moments and couples; equivalent force systems, free-body diagrams; equilibrium of particles and rigid bodies; forces in trusses and beams; friction forces; first and second moments of area; moments and product of inertia; methods of virtual work and total potential energy. Offered occasionally.

PHY 324 ELECTRIC CIRCUIT ANALYSIS

3, 2/2

Prerequisites: PHY 108 or PHY 112. Calculus-based treatment of DC and AC circuits with introduction to commonly used analysis methods; laboratory. Offered fall only.

PHY 340 NONLINEAR DYNAMICS AND CHAOS

3, 3/0

Prerequisites: PHY 310 and PHY 320 or instructor permission. Introduction to nonlinear mechanics in one, two and three dimensions. Bifurcations, phase planes, fixed points, limit cycles, fractals, chaos and strange attractors. Applications to many areas of science such as weather prediction, lasers, vibrational instabilities, and population variations of predators and prey. Offered occasionally.

PHY 389 TOPICS IN PHYSICS

1-3, 3/0

Prerequisite: Instructor permission. Current topics not covered in the courses regularly offered. Offered occasionally

PHY 410 ADVANCED PHYSICS LABORATORY

3, 0/6

Prerequisite: PHY 307 or equivalent. Selected advanced experiments chosen from the areas of modern physics, optics, nuclear physics, solid-state physics, and semiconductors. Offered every spring semester.

PHY 425 CLASSICAL MECHANICS

3, 3/0

Prerequisites: PHY 310, PHY 320, or instructor permission. Particle mechanics in one, two, and three dimensions: rigid body motions in three dimensions: motion in central fields; moving frames of reference; forced harmonic oscillators, and introduction to mechanics in Lagrangian and Hamiltonian formulations. Offered in alternate Fall semesters.

PHY 435 INTRODUCTION TO QUANTUM MECHANICS

3, 3/0

Prerequisites: PHY 310, PHY 320, PHY 305 or instructor permission. Postulates of Quantum Mechanics introduced and explored through examples of different model Hamiltonians. Operator formalism and its connection with the application of the Schrödinger equation. Analytical and numerical techniques applied to physical systems in atomic, nuclear and condensed matter physics. Theoretical and experimental investigations of the foundations of Quantum Mechanics and recent applications. Offered in spring semester in alternate years.

PHY 440 ELECTRICITY AND MAGNETISM I

3, 3/0

Prerequisite: PHY 310 and PHY 320, or instructor permission. Coulomb forces; electric fields and potentials; Laplace equation; boundary value problems and dielectrics; multipole distributions; magnetic induction; introduction to Maxwell's equations. Offered every alternate fall semester.

PHY 441 ELECTRICITY AND MAGNETISM II

3, 3/0

Prerequisite: PHY 440, or instructor permission. Continuation of PHY 440. Electric Induction; Maxwell's equations; momentum and energy of electromagnetic fields; propagating waves; radiation; special relativity; relativistic electrodynamics. Offered every alternate spring semester.

PHY 450 SUPERVISED PHYSICS LABORATORY TEACHING

1-2, 0/0

Prerequisites: Physics major; upper-division status; minimum cumulative GPA of 3.0, 3.25 in major coursework; physics faculty permission based on academic performance, maturity, and potential. Supervised in-classroom introduction to college laboratory teaching techniques and procedures for selected upper-division physics majors. Offered occasionally.

PHY 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Faculty sponsor approval. Physics and physics-related areas. Offered occasionally.

PHY 499 INDEPENDENT STUDY

3, 0/0

Prerequisite: Faculty sponsor approval. Physics and physics-related areas. Offered occasionally.

Psychology (CAS, PSY)

Childhood Advocacy Studies (CAS)

CAS 301 PERSPECTIVES ON CHILD ABUSE AND ADVOCACY

3, 3/0

Prerequisites: Junior or senior status; PSY 101 or CRJ 101 or SWK 101 or EXE 100 or Instructor permission. Introduction to child advocacy studies from a variety of diverse, professional perspectives. History, responses to child maltreatment, skills necessary to successfully conduct child advocacy, and other issues pertaining to child maltreatment and advocacy. Designed for students majoring

in criminal justice, education, social work, sociology, psychology, or other areas where knowledge of child maltreatment and advocacy might be beneficial. Offered every fall.

Equivalent Course: PSY 301

CAS 302 GLOBAL CHILD ADVOCACY ISSUES

3, 3/0; DI23

Prerequisites: CAS 301 or PSY 301. Issues related to the lives of children in countries around the globe and immigrant and refugee children locally. Multidisciplinary approaches to advocacy with these populations. Designed for students majoring in criminal justice, education, psychology, social work, sociology, or other areas where knowledge of child maltreatment and advocacy might be beneficial. Required for Child Advocacy Studies certificate program. Offered every Spring.

CAS 401 PROFESSIONAL AND SYSTEMIC APPROACHES TO CHILD ABUSE AND MALTREATMENT

3, 3/0

Prerequisites: CAS 301 or PSY 301, Junior/Senior standing. Child abuse and maltreatment including knowledge and skills identifying, investigating and prosecuting child abuse. Systems involved in responding to child abuse/maltreatment. Child witnesses, civil and criminal child protection cases. Offered every Spring.

Psychology (PSY)

PSY 101 INTRODUCTION TO PSYCHOLOGY

3, 3/0; SS23

Introduction to the scientific study of psychology; research methodology; genetic, biological, cultural, and environmental influences on behavior; perception, learning; memory; intelligence; maturation; motivation; emotion; stress and coping; personality; social processes and psychopathology. Required for psychology majors. Offered Every Semester.

PSY 120 POSITIVE PSYCHOLOGY: HAPPINESS, HOPE AND HUMOR

3, 3/0

Introduction to positive psychology; topics include happiness, altruism, hopefulness, and humor. Determinants of subjective well-being, such as forgiveness, gratitude, and social support. Applying empirical research in positive psychology to everyday life. Offered occasionally.

PSY 205 INDEPENDENT READING

1, 0/0

Prerequisites: PSY 101 grade of C, and permission of instructor. Supervised readings on a specific topic in psychology chosen mutually by the student and faculty supervisor at the time of registration. Offered occasionally.

PSY 250 PSYCHOLOGICAL SCIENCE FUNDAMENTALS

3, 3/0

Prerequisite: PSY 101 with a grade of C or higher. Overview of the science of psychology. Language and structure of research as a process of scientific inquiry. Analysis and evaluation of research articles. Fundamentals of writing in the discipline. Applying resources and skills for effective learning in psychology. Careers in psychology; ethical principles. Offered every semester.

PSY 295 RESEARCH EXPERIENCE IN PSYCHOLOGY

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

PSY 296 PSYCHOLOGY HONORS SEMINAR

1, 1/0

Prerequisites: PSY 101 with a grade of A- or better; instructor permission. Introduction to research opportunities in psychology, leading to participation in PSY 499 Independent Study in Psychology or PSY 496/498 Honors Thesis I and II. Topics include research and applied careers in psychology, conference presentation skills, and advanced library skills. May be repeated. Offered every semester.

PSY 301 PERSPECTIVES ON CHILD ABUSE AND ADVOCACY

3, 3/0

Prerequisites: Junior or senior status; PSY 101 or CRJ 101 or SWK 101 or EXE 100 or Instructor permission. Introduction to child advocacy studies from a variety of diverse, professional perspectives. History, responses to child maltreatment, skills necessary to successfully conduct child advocacy, and other issues pertaining to child maltreatment and advocacy. Designed for students majoring

in criminal justice, education, social work, sociology, psychology, or other areas where knowledge of child maltreatment and advocacy might be beneficial. Offered every fall.

Equivalent Course: CAS 301

PSY 304 LEARNING: THEORY AND RESEARCH

3, 3/0

Prerequisite: PSY 101, grade of C. Theories of learning and the scientific investigation of the learning process; the psychological correlates of learning, memory and attention, empirical laws and principles and their derivation from research on humans and animals; theoretical explanations of the learning process. Offered Every Semester.

PSY 308 SENSATION AND PERCEPTION

3, 3/0

Prerequisite: PSY 101, grade of C. Major facets of perceptual functioning, from sensory processes to complex perceptual integrative processes. Emphasis on basic concepts such as physiological correlates of perception, empirical laws and principles, and theoretical explanation of perceptual processes and their determinants. Offered Every Semester.

PSY 310 BEHAVIOR MODIFICATION

3, 3/0

Prerequisite: PSY 101. Covers applications of major learning principles. Behavior modification techniques in a variety of settings are reviewed. Focus is upon environmental effects on human behavior, though findings with animals and cognitive/behavioral techniques are also discussed. Provides limited applied experience including use in creating positive personal life changes. Offered occasionally.

PSY 311 PERSONALITY: THEORY AND RESEARCH

3, 3/0

Prerequisite: PSY 101, grade of C. Theoretical problems, methods, and empirical findings related to the development of an adequate theory of personality development and function; problems of theory construction, major theoretical approaches, personality determinants, and personality assessment; empirical research. Offered Every Semester.

PSY 321 COMPARATIVE ANIMAL BEHAVIOR

3, 3/0

Prerequisite: PSY 101, grade of C. The study of animal behavior from a psychological perspective; current theoretical models; evolution and adaptive functions of sexuality, predator-prey interactions, evolution of social organization, territoriality, dominance, aggression, learning, and instinct. Offered spring only.

PSY 325 SOCIAL BEHAVIOR

3, 3/0

Prerequisite: PSY 101, grade of C. Theoretical and empirical examination of the role of social factors on an individual's behavior; attitude formation and change, affiliation, attribution process, interpersonal attraction, small-group dynamics, aggression, conformity, leadership, and competition. Offered Every Semester.

PSY 327 ADULT DEVELOPMENT AND AGING I

3, 3/0

Prerequisite: PSY 101, grade of C. Introduction to human development and change throughout early, middle, and late adulthood; current psychological theory and empirical evidence on patterns of aging, problems of aging, and benefits of aging; social, psychological, and biological determinants of adult development; cognitive change; personality change; family relations; life satisfaction; the stigma of old age. Offered fall only.

PSY 330 THE PSYCHOLOGICAL POWER OF LANGUAGE

3, 3/0

Prerequisites: PSY 101, grade of C. Study of language from a psychological science standpoint. Properties of human languages; how language is represented in mind and brain; how it is acquired; whether it is specific to humans; relationship between language and culture; verbal and non-verbal aspects of how language is used to communicate. Offered fall only.

PSY 333 BRAIN AND BEHAVIOR

3, 3/0

Prerequisites: PSY 101, Grade of C or better. An introduction to the brain structures and processes that underlie cognition, emotion, and action. Topics include: general principles of behavioral neuroscience; neural, genetic, and epigenetic basis of behavior; functional brain anatomy; effect of drugs and hormones on brain and behavior. Offered every semester.

PSY 340 COGNITIVE PSYCHOLOGY

3, 3/0

Prerequisite: PSY 101 with a minimum grade of C. Introduction to the mind and thinking from a cognitive psychology viewpoint. Classic and contemporary research examining perception, attention, memory processes and structures, imagery, language processing, problem-solving and creativity, and decision-making. Theories of cognition based on information-processing, embodied cognition, and neural circuits and processing in the brain. Offered Every Semester.

PSY 350 STATISTICS IN PSYCHOLOGICAL RESEARCH

3, 3/1

Prerequisite: PSY 101, grade of C, at least Sophomore status, and at least one of the following: MAT 114 or MAT 121 or MAT 126 or MAT 161 or MAT 202 or MAT 270 or MAT 301 or MAT 306 or MAT 311 or MAT 315 . Intensive study of the major descriptive and inferential statistics used in psychological research; graphic and tabular presentation of data, measures of central tendency and dispersion, probability theory, t-tests, analysis of variance, chi-square, correlation techniques; experimental design. Required for psychology majors. Completion of PSY 306 with a grade of C or better is a prerequisite for the required major course PSY 450. Offered Every Semester.

PSY 355 LIFESPAN DEVELOPMENTAL PSYCHOLOGY

3, 3/0

Prerequisite: PSY 101, grade of C. Psychological, biological, and social factors that affect psychological development throughout the lifespan; physical development, language acquisition, cognitive development, social development, personality development, morality and changing life tasks; genetic, cultural, and experiential determinants of development. Offered Every Semester.

PSY 356 CHILD DEVELOPMENT

3, 3/0

Prerequisite: PSY 101, Grade of C. Psychological, social, and biological factors that affect development from conception through preadolescence; comprehensive exposure to research findings and theories in child development. Physical development, language acquisition, cognitive development, social and emotional development, and moral development; mechanisms of developmental change such as genetic, cultural, historical, and experiential influences. Offered Every Semester.

PSY 357 ADOLESCENT AND YOUNG ADULT DEVELOPMENT

3, 3/0

Prerequisite: PSY 101, grade of C. Current theoretical and empirical understandings of the transitions from early adolescence to young adulthood; multidisciplinary approach; biological, psychological, and social factors emphasized. Biological, cognitive, interpersonal, self-concept, family, academic, and career transitions as well as psychosocial problems encountered. Offered Every Semester.

PSY 360 EVALUATING PSYCHOLOGICAL SCIENCE

3, 3/0

Prerequisite: PSY 350. Overview of the science and methodology of psychology in preparation for applied careers. Topics include: how to be a successful consumer of psychology information; research as a process of scientific inquiry; evaluation of research articles; writing in the discipline; ethical principles. Required for majors in Applied Psychology. Offered every semester.

PSY 365 PSYCHOLOGY IN THE WORKPLACE

3, 3/0

Prerequisite: PSY 101, grade of C. Theory and research in industrial/organizational psychology emphasizing personnel selection, classification, placement, training, and development; work motivation, job satisfaction, factors that influence productivity, leadership, and organizational theory. Offered fall only.

PSY 367 ORGANIZATIONAL BEHAVIOR

3, 3/0

Prerequisites: PSY 101, grade of C. Behavior, attitudes and performance of people in organizations. Interdisciplinary perspective of theory, research and practice of individual behavior and organizational performance. Addresses practical managerial problems and organizational functioning. Offered spring only.

PSY 370 ENVIRONMENTAL PSYCHOLOGY I

3, 3/0

Prerequisite: PSY 101, grade of C. Environmental psychology and the role of physical environment on behavior; physical environment-behavior relations, research methods, territoriality, privacy, crowding, environmental perception and attitudes, pollution and behavior, buildings and behavior. Offered occasionally.

PSY 375 FORENSIC PSYCHOLOGY

3, 3/0

Prerequisite: PSY 101, grade of C. Application of psychological knowledge to the civil and criminal justice systems; research endeavors that examine aspects of human behavior as well as the professional practice of psychology within the legal system; clinical, applied and research activities of psychology and law. Offered Every Semester.

PSY 376 HEALTH PSYCHOLOGY

3, 3/0

Prerequisite: PSY 101, grade of C. Theory and empirical research in the psychology of stress, coping, and health; health psychology, major physiological systems, components of stress, relationship of stress to health, physical and psychological consequences of stress, social support systems, coping with life crises, relaxation techniques, psychological intervention and treatment, and the holistic health model. Offered Every Semester.

PSY 381 PSYCHOLOGY OF CULTURE

3, 3/0

Prerequisite: PSY 101, grade of C. Similarities and differences in behavior cross-culturally; the dimensions along which individuals vary between cultures; the issues involved in conducting cross-cultural research; differences and similarities between cultures in the areas of the self and personality, conformity, obedience, aggression, attachment and child-rearing; abnormal psychology and culture-bound syndromes, and interpersonal and group relations. Offered occasionally.

PSY 382 PSYCHOLOGY OF THE CONSUMER

3, 3/0

Prerequisite: PSY 101, grade of C. Psychology of consumer behavior; psychological theory and measurement techniques as tools for understanding consumer behavior. Relevant material from learning, perception, attitude formation, personality, and motivation literature as it describes consumer decision making. Offered occasionally.

PSY 383 THE PSYCHOLOGY OF HUMAN SEXUAL BEHAVIOR

3, 3/0

Prerequisite: PSY 101 grade of C or better. Psychosexual aspects of human sexuality. Topics include: historical views of human sexuality, sex research, physiology of sex, gender identity, sexuality throughout the lifespan, sexual orientations, social psychological attitudes toward sex, sexual difficulties, atypical sexual behavior, and love, intimacy, and communication in relationships. Offered every semester.

PSY 384 PSYCHOLOGY OF AGGRESSION AND VIOLENCE

3, 3/0

Prerequisite: PSY 101, grade of C. Reasons for aggression; biological vs. environmental causes of aggression; definitions and scientific study of aggression; methods to control aggression. Offered occasionally.

PSY 387 PSYCHOLOGY OF GENDER

3, 3/0; DI23

Prerequisite: PSY 101, grade of C. Empirical and theoretical issues of the psychology of gender issues; differences in female and male behavior in terms of such social factors as conformity to societal pressures, sex-role stereotyping, and gender-specific socialization patterns; biological influences on gender differences; development of sex differences; gender-role development; sex differences in cognition, personality, achievement, and leadership. Offered fall only.

PSY 388 PSYCHOLOGY OF DEATH AND DYING

3, 3/0

Prerequisite: PSY 101, grade of C. Objective coverage of the relevant issues pertaining to death and dying; the stages of dying, counseling the dying person, attitudes of and reactions to death, psychological needs served by funeral and burial rituals, suicide, grief, bereavement, the child and death, effect of death on survivors, euthanasia, and medical and legal definitions of death. Offered occasionally.

PSY 389 TOPIC COURSE

3, 3/0

Examination of specific topics related to emerging areas of psychology. Offered occasionally.

PSY 392 ABNORMAL PSYCHOLOGY

3, 3/0

Prerequisites: PSY 101 with a grade of C or better and 3 additional hours of psychology. Examines psychopathology from a biopsychosocial perspective, exploring research and theory. Topics include: the concept of abnormality, classification, assessment, and treatment of psychopathology, and the etiology and characteristics of selected disorders.

PSY 393 ABNORMAL CHILD PSYCHOLOGY

3, 3/0

Prerequisites: PSY 101 with a grade of C or better and 3 additional hours of psychology. Significant issues and problems related to child psychopathology. Diagnosis, assessment, and treatment of childhood disorders, including, but not limited to ADHD, autism spectrum disorder, depression, conduct disorder, eating disorders, intellectual disability, and learning disabilities.

PSY 412 COMMUNITY PSYCHOLOGY

3, 3/0

Prerequisites: PSY 101, grade of C, and 3 credit hours of psychology; PSY 392 recommended. Theoretical and empirical literature regarding community mental health. Historical perspectives on the community mental health movement, assessment of psychological dysfunction, levels of evaluating institutional change, consultation, and program evaluation. Offered occasionally.

PSY 415 THE COMPETENT INFANT

3, 3/0

Prerequisites: PSY 101, grade of C, and PSY 355 or PSY 356. The psychological world of the normal human infant. Primary empirical research and theoretical problems relating to the field of infant development; biological processes of development, prenatal development, birth, characteristics of the neonate, speech and language, cognition and learning, interactions and socialization, sex differences in behavior, theoretical models of early development. Offered fall only.

PSY 417 THE ATYPICAL INFANT

3, 3/0

Prerequisites: PSY 101, grade of C, and PSY 355 or PSY 356. The psychological effects of developmental delay in infants. Screening, assessment, and intervention of high-risk infants; definition of at-risk and high-risk infants, biological traumas and defects, prenatal traumas, birth and perinatal traumas, psychological crises in infancy, psychological assessment of developmental delay in newborns and infants, early intervention for high-risk infants and their families, psychological issues of parenting the high-risk infant. Offered spring only.

PSY 421 PHYSIOLOGICAL PSYCHOLOGY

3, 3/0

Prerequisite: PSY 333. Focus on the brain, nervous system, and endocrine system and their relationship to animal and human behavior. Includes: psychosurgery, physiological basis of language, intelligence, emotion, motivation, motivated behaviors, learning, sexuality, abnormal behavior, perception, and motor behavior. Offered fall only.

PSY 423 PSYCHOLOGY AND PHYSIOLOGY OF EATING

3, 3/0

Prerequisites: PSY 101 and 6 additional credits in psychology. Sensory, hormonal, and neural control of eating; role of reinforcement as a contributing factor to energy intake; individual physical disparities that cause variations in food intake; food preference; obesity; overlap between food intake and drugs of abuse. Offered occasionally.

PSY 427 ADULT DEVELOPMENT AND AGING II

3, 3/0

Prerequisites: PSY 101 grade of C, and PSY 327. Complex psychological issues pertaining to late-life development and adjustment; theoretical and applied issues, research methodologies, empirical data in relation to cognitive processes, personality, self-conceptions, social contexts, clinical assessment and intervention, and cultural influences on the behavior of older adults. Offered occasionally.

PSY 430 PSYCHOLINGUISTICS

3, 3/0

Prerequisites: PSY 101 grade of C, and PSY 330 or PSY 340. Empirical approach to how we produce and understand language. Major theories, looking at language sounds, words, sentences, conversation, and discourse. Integrates language representation and processing into the general framework of cognitive science. Includes laboratory exercises and final project. Offered spring only.

PSY 432 HUMAN MOTIVATION AND EMOTION

3, 3/0

Prerequisites: PSY 101 grade of C, and PSY 304 or PSY 376. Motivation and the fundamental, empirical, and logical basis for its postulation and use in psychological explanations of animal and human behavior; motivation and how motivational processes interact with other psychological processes. Offered occasionally.

PSY 435 HUMAN MEMORY

3, 3/0

Prerequisite: PSY 101 with a grade of C or better, and at least one of the following Bio/Cognitive courses: PSY 304 or PSY 308 or PSY 321 or PSY 330 or PSY 333 Or PSY 340. Components and functioning of the human memory system and its neural basis in the brain. Theory and model-based examination of memory formation, storage, organization, retrieval success and failure. Exploration of memory errors, the role of emotion, amnesias, dementias, and mnemonics. Includes research project. Offered at least once a year.

PSY 440 ADDICTIVE BEHAVIORS

3, 3/0

Prerequisites: PSY 392; PSY 311 is recommended. Etiology, prevention, and treatment of addictive behaviors, emphasizing biological, psychological, and social factors; dependence on alcohol, nicotine, and other drugs, as well as gambling, eating disorders, and compulsive sexual behavior. Offered Every Semester.

PSY 441 INTRODUCTION TO NEUROPSYCHOLOGY

3, 3/0

Prerequisites: PSY 101 grade of C, and 3 credit hours of psychology. The relationship between human brain function and behavior; functional anatomy of the brain; experimental and clinical techniques employed by neuropsychologists to uncover brain-behavior relationships. Offered Every Semester.

PSY 442 PSYCHOLOGICAL ASSESSMENT

3, 3/0

Prerequisite: PSY 350. Issues and problems surrounding psychological assessment. Test construction, reliability, validity, administration, norms, and interpretation. Commonly used interviewing, intelligence, personality, neuropsychological, and personnel-assessment techniques. Provides limited applied experience. Offered every spring.

PSY 450 RESEARCH METHODS IN PSYCHOLOGY I: INTRODUCTION TO RESEARCH METHODS

3, 2/2; IN23

Prerequisites: PSY 350 with a grade of C or better; completion of Mathematics and Quantitative Reasoning general education requirement (limited to MAT courses only and at the level of MAT 114 or higher). Laboratory investigation in the behavioral sciences; higher-order correlational and parametric statistics, various approaches to research, and the interpretation and communication of research findings. Laboratory experiences to illustrate course content. Requires minimum of five laboratory exercises and reports. Required for psychology majors. Offered Every Semester.

PSY 458 ADVANCED RESEARCH METHODS IN PSYCHOLOGY

3, 3/0

Prerequisite: PSY 450. This course is a continuation of PSY 450 and focuses on advanced methods used in psychological research and the application of these methods through the completion of a research project. Topics covered include: ethics in psychology, experimental design, research with human subjects, statistical analyses, potential confounds, the development of scales and other measures. Offered every semester.

PSY 460 ADVANCED LEGAL PSYCHOLOGY

3, 3/0

Prerequisites: PSY 101 grade of C, and PSY 375 or PSY 325. How behavior in legal contexts is influenced by social psychological, cognitive, and developmental processes. Social and cognitive influences on eyewitness testimony and memory, false confessions, jurors' decision making and evaluation of trial evidence, social influence among jury members, children's participation in the legal system, and discrimination in the legal system. Offered spring only.

PSY 466 PERSONNEL PSYCHOLOGY

3, 3/0

Prerequisites: PSY 101 grade of C, and PSY 365 or PSY 367. Problems, tools, and strategies involved in applying psychological principles to personnel selection, placement, training, and assessment in organizations; the roles of personnel psychologists, job analysis, developing performance criteria for jobs, performance appraisal, interviewing, the uses of employment testing, predicting job success, training programs, and social and ethical issues in personnel psychology. Offered occasionally.

PSY 468 PROFESSIONAL SKILLS IN PSYCHOLOGY

3, 3/0

Prerequisites: PSY 360; Senior Standing. Preparation for careers in psychology. Topics covered include: the role of science in applied psychology, critical thinking, careers in psychology and related fields, general and field-specific professional skills, and professional ethics that guide the field. Offered every semester.

PSY 470 ENVIRONMENTAL PSYCHOLOGY II

3, 3/0

Prerequisites: PSY 101 and PSY 370. Advanced- level continuation of PSY 370. Theory building in physical-environmental behavior relations, innovative and unobtrusive measures, individual human needs in the physical environment, and basic processes and their relationship to the physical environment. Contact department regarding course availability.

PSY 471 HISTORY AND SYSTEMS OF PSYCHOLOGY

3, 3/0

Prerequisites: PSY 101 grade of C, 6 credit hours of psychology and senior standing. History of the emergence of modern psychology from pre-Socratic thought to the present. Emphasis on systematic examination of psychology's historical roots as expressed in contemporary theories and models. Required for psychology majors. Offered Every Semester.

PSY 472 SEMINAR ON PSYCHOLOGY

3, 3/0; RE23

Prerequisites: PSY 101 grade of C, PSY 350 grade of C, PSY 450, and 6 credit hours of psychology. Topic areas for each course vary and are announced prior to student enrollment. Coursework involves the study of basic theoretical principles and empirical laws of different psychology content areas; individual presentations on relevant topics. Required for psychology majors. Offered Every Semester.

PSY 480 PSYCHOTHERAPY: THEORY, RESEARCH, AND PROCEDURES

3, 3/0

Prerequisites: PSY 311 or PSY 392. The contribution of psychology to the practice of psychotherapy; theory, research, and clinical applications; the scientist-practitioner model; major theories of psychotherapy; the social impact of therapy; research support for major therapy systems; ethical issues. Offered fall only.

PSY 481 PSYCHOLOGICAL TESTS AND MEASUREMENTS

3, 3/0

Prerequisites: PSY 101 grade of C, and PSY 350. Issues and problems surrounding psychological testing. Test reliability, validity, construction, administration, norms, and interpretation; commonly used intelligence, personality, neuropsychological, and personnel-assessment techniques. Provides limited practicum experiences. Offered spring only.

PSY 488 INTERNSHIP

3-15, 0/0

Prerequisite: Permission of the instructor; second semester junior standing; minimum 2.5 GPA. Supervised field experience in a variety of settings to supplement the classroom instruction of the Psychology Department. Offered every semester.

PSY 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Faculty supervisor permission. Research conducted under the supervision of a faculty member. Offered occasionally.

PSY 496 HONORS THESIS I

3, 0/0

Prerequisites: PSY 450, 72 credit hours, and permission of instructor. Honors psychology students initiate research that is formally presented in thesis form. Formal research proposals (oral and written) presented to supervisors and honors thesis committee. Extensive library research. Required for students in the departmental honors program. Offered occasionally.

PSY 498 HONORS THESIS II

3, 0/0

Prerequisites: PSY 496 with a minimum grade of B and permission of instructor. Honors psychology students conduct research proposed in PSY 496 and submit a formal thesis in written form. Oral defense of work before faculty supervisor, thesis committee, and interested faculty members. Required for students in the departmental honors program. Offered occasionally.

PSY 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisite: Faculty adviser permission. Offered occasionally.

Social & Psychol Found of Ed (SPF)

SPF 189 ADULTS IN LEARNING

1, 1/0

SPF 202 CHILD DEVELOPMENT AND EDUCATION

3, 3/0

Introduction to the study of child behavior and development with emphasis on implications for teaching and learning. Focus on the child in school, from early childhood through preadolescence. Includes child-study and observation methods; theories of development; nature and sources of individual development from biological, cultural, and behavioral perspectives, with emphasis on cognitive, social, emotional, and physical areas of development as they apply to the classroom. Required for elementary education and exceptional education majors according to program; elective for others beyond freshman level. Offered Every Semester.

SPF 203 SCHOOL AND SOCIETY

3, 3/0; DI23, SS23

Prerequisite: Successful completion of the basic writing requirement. Education as a function of a democratic society. Sociological and historical backgrounds of schools. Current issues and problems affecting schools. Objectives, control, and financial support of education in New York State and the United States. Directed observation. Required of elementary-education and exceptional-education majors according to program; elective for others beyond freshman level. Offered Every Semester.

SPF 221 THE HISTORY OF BLACK EDUCATION IN AMERICA

3, 3/0

The role of blacks in the American educational system. Changes that have taken place in order to improve or retard education for blacks. Approaches for providing meaningful education for blacks now and in the future. Offered occasionally.

Equivalent Course: AAS 221

SPF 222 THE DEVELOPMENT OF MODERN EDUCATION IN AFRICA

3, 3/0

Educational changes in Africa from the colonial era to the present and their effect on social and political issues in Africa and abroad. Offered occasionally.

Equivalent Course: AAS 222

SPF 225 ETHNIC STUDIES IN THE ELEMENTARY SCHOOL

3, 3/0

Ethnic diversity in American life and education. Cultural minorities, e.g., Native Americans, blacks, Spanish-speaking groups, Jews. White ethnic groups and mainstream American life and education. Offered occasionally.

SPF 302 EDUCATIONAL PSYCHOLOGY: ELEMENTARY EDUCATION

3, 3/0

Prerequisites: EDF 202, CWP 101, CWP 102, upper-division status. Learners, the learning process, evaluating learning, and establishing a classroom environment to maximize learning. Offered Every Semester.

SPF 303 EDUCATIONAL PSYCHOLOGY: MIDDLE AND SECONDARY EDUCATION

3, 3/0

Prerequisites: upper-division status. Psychological principles underlying learning and effective teaching. The effect of social and personality factors on learning, assessment, and evaluation of individual progress. Diagnosis of difficulties in learning, discipline, programming, and planning as related to instruction. Directed observation. Offered Every Semester.

SPF 311 FAMILY VIOLENCE

3, 3/0

Prerequisite: Successful completion of the basic writing requirement. Comprehensive overview and critical investigation into the field of family violence. Includes child abuse, dating violence, spouse abuse, sibling violence, adolescent maltreatment, parent abuse, and elder abuse. Explores history, prevalence, susceptibility factors, patterns of social interaction, demographics, sexual and emotional abuse, and the violence-prone personality. Theoretical perspectives on family violence, including cycle theory of violence, integrated within broader social science perspectives. Offered occasionally.

SPF 319 CULTURAL DIVERSITY IN CLASSROOMS

3, 3/0

Prerequisite: SPF203. Focus will be placed on the impact of culture on schooling through examination of the major conceptualizations of multicultural education and understanding of approaches that may be utilized by pre- and in-service teachers in ensuring that diverse cultures are addressed, respected, and integrated into classroom teaching, learning, and assessment.

SPF 345 PARENTING

3, 3/0

Prerequisite: Successful completion of the basic writing requirement. Relevant issues facing parents and professionals who work with them in today's changing society. Includes classical and current research, with emphasis on practical application and implication. Developmental approach to understanding parent-child relationships. Working more effectively with parents of varied cultural backgrounds, family structures, lifestyles, and at-risk factors. Offered occasionally.

SPF 346 TEENAGE SEXUALITY

3, 3/0

Teenage sexuality and factors influencing its emergence. The incorporation of sexuality education into the teaching-learning process at home and in school. Cooperative efforts by parents and teachers. Development of skills in communicating with teenagers about their sexuality. Strategies for teens to deal with sexuality concerns more effectively. Community resources for teens, parents, teachers. Special issues and problems. Offered occasionally.

SPF 353 HUMAN DEVELOPMENT DURING EARLY ADOLESCENCE AND ADOLESCENCE

3, 3/0

Introduction to preadolescent and adolescent behavior and development, with emphasis on implications for teaching. Includes the nature of adolescence, developmental and behavioral characteristics, learning and education, problems and issues of adolescents in today's society, ways teachers can study adolescents, and self-understanding.

SPF 366 CULTURAL PROFICIENCY AND PUBLIC ACHIEVEMENT

4, 3/0; DI23

Public achievement serves as a framework for analyzing diverse student perspectives, opinions, and assets to identify and meet the needs of different cultural groups and to learn to work effectively in cross-cultural settings. Students will be provided with practical experiences in implementing a project with children in a local school district.

Equivalent Course: SOC 366

SPF 389 THEMES AND ISSUES IN URBAN EDUCATION

3, 3/0

The contemporary social contexts of urban education; theory, schooling, and strategies for improved ways of teaching in relation to the community are explored. Offered occasionally.

SPF 403 HISTORICAL AND PHILOSOPHICAL FORCES INFLUENCING SECONDARY EDUCATION

3, 3/0

Prerequisite: Successful completion of the basic writing requirement. European, religious, and secular influences in American education. Evolving concepts of education in a democracy. Social and economic pressures in education. Development of the secondary school. Conflicting philosophies in current education. Offered Every Semester.

SPF 495 SPECIAL PROJECT

3, 0/0

SPF 497 WORKSHOP

1-3, 0/0

Social Work (SWK)

SWK 101 INTRODUCTION TO SOCIAL WORK

3, 3/0; SS23

Focus on introduction to generalist social work practice in the United States, social work values, roles, and settings of practice. Contemporary issues facing social workers with emphasis on social work practice with vulnerable populations. Offered every semester.

Equivalent Course: SWK 220

SWK 105 INTERPERSONAL RELATIONS

3, 3/0

The impact of societal, cultural, and professional values on interpersonal relationships; increased awareness of interpersonal skills and examination of ways to overcome barriers to healthy interpersonal relationships. Offered occasionally.

SWK 201 PROFESSIONAL SKILLS FOR SOCIAL WORKERS

3, 3/0

Prerequisites: SWK majors; CWP 102, SWK 101 or SWK 220. Focus on the professional obligations of a social worker, including skills and ethics used in social work. Emphasis on social work as a science-based profession. IF Writing Infused course. Offered every fall.

SWK 220 INTRODUCTION TO SOCIAL WORK

3, 3/0

Prerequisite: Sophomore standing. Focus on introduction to generalist social work practice in the United States, social work values, roles, and settings of practice. Contemporary issues facing social workers with emphasis on social work practice with vulnerable populations. Offered Every Semester.

Equivalent Course: SWK 101

SWK 230 INTERSECTIONALITY OF DIFFERENCE

3, 3/0; DI23

Exploration of culture, diversity, inclusion, personal biases, power, privilege, intersectionality, and the role of social work in addressing anti-racism, anti-discrimination, and anti-oppression. Offered every semester.

SWK 301 POVERTY AND PUBLIC POLICY

3, 3/0; DI23

Prerequisite: Sophomore, Junior standing. Focus on social welfare policies and programs. Overview of historical treatment of poverty and the poor, theories of poverty causation and the demographics of those impacted by poverty including race, age, gender, immigration status, socioeconomic status. Social change strategies and advocacy. Requires 20 hours of volunteer work in addition to coursework. Offered every semester.

SWK 302 SOCIAL JUSTICE ADVOCACY

3, 3/0; DI23

Prerequisite: Sophomore status. An overview of human rights, social injustices, and social justice advocacy. Activist efforts, including social movements and voting. Students will reflect on their own involvement as social justice advocates. The foundation framework of Just Practice will be used to understand social justice with social work. Offered every semester.

SWK 307 HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT I

3, 3/0

Prerequisites: SWK Majors Only, BIO 101, CWP 102, any PSY course, any SOC course. Focus on theories, and perspectives that are used to understand human development across the lifecycle; including current social issues that impact personal development. Offered every fall.

SWK 308 HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II

3, 3/0

Prerequisites: SWK Majors Only. CWP 102, BIO 101, any PSY, any SOC. Focus on understanding and applying the primary theoretical frameworks used in the field of social work to engage, assess, intervene, and evaluate work with diverse populations. Offered every fall.

SWK 310 SEXUALITY IN HUMAN DEVELOPMENT

3, 3/0

Examination and analysis of human sexuality as part of human development; designed for future human services professionals. Offered occasionally.

SWK 317 RESEARCH METHODS IN SOCIAL WORK

3, 3/0; IN23, RE23

Prerequisites: SWK Majors Only, SWK 307, SWK 308. Application of research methods in generalist social work practice. Includes research ethics, evidence based practice, and research design used in evaluation of social work practice. Writing intensive course. Offered every spring.

Equivalent Course: SWK 400

SWK 320 SOCIAL SERVICES ORGANIZATIONS

3, 3/0

Prerequisites: SWK Majors Only, SWK 307, SWK 308. Focus on history and functions of social service organizations. Overview of the creation, and implementation of social welfare policy, programs; community assessment and community organizing. Offered every spring.

SWK 321 THE ELDERLY AND SOCIAL SERVICES

3, 3/0

Prerequisite: Junior/Senior standing. Needs of and services for the elderly; services and programs; policy issues regarding the aging, such as health, housing, and finances; intervention strategies for working with the elderly. Offered occasionally.

SWK 330 FOUNDATIONS OF SOCIAL WORK

3, 3/0

Prerequisites: SWK major, SOC 100, PSY 101, CWP 102. Focus on the practice behaviors and skills used in social work. Emphasis on social work professionalism and professional skills, social work ethics, engagement at the micro, mezzo, and macro levels using Just Practice social justice framework, and the role of the social worker within human services organization and the community. Offered every fall.

SWK 335 MENTAL HEALTH AND SOCIAL WORK

3, 3/0

Prerequisite: Junior/Senior status, PSY101 or Social Work major. Theoretical perspectives concerning mental health and mental illness; history of the mental health movement; institutional and community mental health services; roles and functions of social workers and other personnel in the mental health system. Offered occasionally.

SWK 340 SOCIAL WORK THEORY AND ASSESSMENT

3, 3/0

Prerequisite: Majors only, SWK 330 with minimum grade of C. Overview of history, ethics, skills, and the foundational theories used to practice social work in the 21st century. Application of foundational theoretical perspectives in the assessment process at the micro-, mezzo-, and macro-levels. Development of social work skills used in the assessment process. Offered every spring.

SWK 345 CHILD WELFARE SERVICES

3, 3/0

Prerequisite: Junior/Senior standing. Child welfare as a field of practice in social work; historical and philosophical bases; the impact of culture, ethnicity, and race on practice; current delivery of services; skills needed to practice in the field. Offered occasionally.

SWK 346 CHILD ABUSE AND NEGLECT

3, 3/0

Prerequisite: Junior/Senior status, PSY101 or Social Work major. Major issues in child abuse and neglect from a social work viewpoint; the nature of abuse and neglect, the actual incidence, workings of the current child-protection system; intervention and treatment issues; the role of other disciplines and the larger society. Offered occasionally.

SWK 350 SOCIAL WORK IN ACTION

3, 3/0

Prerequisite: Majors only, SWK 330 with minimum grade of C. Prerequisites: SWK 330, Social Work majors only. Evidence-based interventions and ethical implementation of interventions at the micro-, mezzo-, and macro-levels using the Just Practice – social justice approach to social work with diverse populations across the lifecycle. Offered every spring.

SWK 389 TOPICS IN CHILD ABUSE: THE ROLE OF THE CLASSROOM TEACHER

3, 0/0

Upper-level topics course in Social Work. Offered occasionally.

SWK 400 EVIDENCE-BASED PRACTICE

3, 3/0

Prerequisites: SWK 340, SWK 350 with minimum grades of C; SWK majors only. Focus on investigating the research on evidence-based social work practices, analyzing research methods used at the micro, mezzo and macro level of social work practice, ethical research, and history of social injustice within research, including Just Practice concepts to ethical research. Offered every fall semester.

Equivalent Course: SWK 317

SWK 419 SOCIAL WELFARE POLICY

3, 3/0

Prerequisites: SWK Majors Only, SWK 317, SWK 320, SWK 423, SWK 424. Macro level advocacy with communities and legislative bodies; policy analysis; social justice models. Offered every fall.

SWK 422 ASSESSMENT AND ENGAGEMENT

3, 3/0

Prerequisites: SWK Majors Only, Junior/Senior standing, BIO 101, CWP 102, any PSY, any SOC. Fundamental skills of social work practice; communication, engagement, and assessment skills with individuals and families. Offered fall only.

SWK 423 INTERVENTIVE METHOD

3, 3/0

Prerequisites: SWK Majors Only, SWK 422. Focus on generalist social work practice behaviors and skills for evidence-based intervention with diverse populations across the lifecycle, and ethical guidelines for social work practice. Offered every spring.

SWK 424 GROUPS

3, 3/0

Prerequisites: SWK Majors only, SWK 101 or SWK 220. Focus on generalist social work group practice. Emphasis on facilitation of groups, group process, ethical group practice, and group development. Offered every spring.

SWK 425 SOCIAL WORK WITH FAMILIES

3, 3/0

Prerequisites: Junior/Senior status, PSY101 or Social Work major Focus on family and family intervention; family theory and practice principles studied through examination of families in specialized problem contexts. Offered occasionally.

SWK 429 POLICY PRACTICE

3, 3/0

Prerequisites: SWK Majors only, SWK 419. Focus on international human rights, and social, economic, and environmental justice. Policy analysis and program development. Global social work. Offered every spring.

SWK 483 BSC LED STUDY AWAY PROGRAM

1-15, 0/0

Acceptance into the program required.

SWK 485 SENIOR SEMINAR

3, 3/0

Intensive analysis of selected topics in social work. Offered occasionally.

SWK 493 FIELD PRACTICUM I

6, 6/0

Prerequisites: SWK Majors only, SWK 317, SWK 320, SWK 423, and SWK 424. GPA of 2.5 or above in SWK major and overall. Focus is on integration and demonstration of practice behaviors and skills used for social work engagement and assessment. Includes social work field practice supervision and evaluations that integrates and supports all social work coursework and accompanying required social work field internship. Offered every fall.

SWK 494 FIELD PRACTICUM II

6, 3/0

Prerequisites: SWK Majors Only, SWK 493. GPA of 2.5 or Above in SWK Major and Overall. Focus is on integration and demonstration of practice behaviors and skills used for social work intervention. Includes social work field practice that integrates and supports all social work course work and the accompanying required social work field internship. Offered every spring.

SWK 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

SWK 496 INTEGRATIVE SEMINAR I

3, 3/0

Prerequisites: SWK Majors Only, SWK 317, SWK 320, SWK 423, and SWK 424. Focus on the integration of practice behaviors and skills used in social work. Emphasis on the engagement and assessment phases of generalist social work practice. Offered every fall.

SWK 497 INTEGRATIVE SEMINAR II

3, 3/0

Prerequisites: SWK majors only; SWK 496. Co-requisite: SWK 494. Integration of coursework and the demonstration of social work practice skills. This course will focus on case management interventions and developing the social work helping process including evaluation of the process and termination with clients. Offered every spring.

SWK 499 INDEPENDENT STUDY

3-9, 0/0

Offered occasionally.

Sociology (SOC)

SOC 100 INTRODUCTION TO SOCIOLOGY

3, 3/0; SS23

An introduction to the study of human society, its culture, institutions, processes, and change, including an examination of socialization, and relationships between and among individuals and groups in society. A prerequisite for many other courses in sociology and a requirement for all sociology majors. Useful for students planning careers in which they must interact with people of varying social and economic statuses. Offered every semester.

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OC 189 TOPIC COURSE

1, 0/0

Current topics in Sociology. Offered occasionally.

SOC 199 INTRODUCTION TO COMPUTER USE IN THE SOCIAL SCIENCES

3, 3/0

Hands-on introduction to the application of computers to applied social research problems, including a review of past practices, current uses, and future trends; computer analysis of data to develop insights into the ways applied sociologists use computers in their work. Offered occasionally.

SOC 204 CLASSICAL SOCIOLOGICAL THEORY

3, 3/0

Prerequisites: SOC 100. Ideas developed by the early founders of sociology, including Auguste Comte, Karl Marx, Max Weber, Emile Durkheim, Georg Simmel, Herbert Spencer and their contemporaries. Course offered every semester.

Equivalent Course: SOC 400

SOC 208 SOCIOLOGY OF CONTEMPORARY CHINA

3, 3/0

Contemporary China from various sociological perspectives; brief history of China; recent developments of social structure, cultural values and norms in China; comparison of China and Western societies; practical outcomes of China studies. Offered occasionally.

SOC 212 FEMINIST THEORY

3, 3/0

Background in feminist social theory and changes in feminism over time. Introduction to theoretical analysis from a feminist perspective. Offered occasionally.

Equivalent Course: WGS 212

SOC 240 ANALYZING SOCIAL PROBLEMS

3, 3/0; SS23

Analysis of several major social problems selected according to faculty and student needs and interests; a variety of approaches, techniques, and theories will be used. Offered Every Semester.

SOC 250 SOCIOLOGY OF BUFFALO, NEW YORK

3, 3/0

Prerequisite: SOC 100. The city of Buffalo from the perspectives of socio-historical development, socioeconomic conditions, environmental conditions, and neighborhood development. Use of secondary data and field experiences to better understand the condition of the city and its neighborhoods. Includes a field component as part of regular class time and outside assignments. Students complete term papers based on readings, research, and field work. Offered occasionally.

SOC 295 RESEARCH EXPERIENCE IN SOCIOLOGY

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

SOC 299 SOCIAL STATISTICS

3, 3/0; IN23

Prerequisites: SOC100. Overview of the major statistical concepts necessary for sociological research and analysis of social data. Introduction to statistical software and methods to analyze social data. Topics include database construction, database management, descriptive statistics, probability, inferential statistics, statistical association, and data presentation. Required for sociology majors. Offered every semester.

Equivalent Course: SOC 301

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OC 300 METHODS IN SOCIAL RESEARCH

3, 3/0; RE23

Prerequisite: SOC 100. The nature of scientific evidence, induction, and deduction; the application of scientific methods to sociological data; the use of statistics and other means of data collection; case histories, narrative and descriptive methods; methods of writing for publication; use of social materials from journals and books as illustrative material. Offered Every Semester.

SOC 301 SOCIAL STATISTICS

3, 3/0

Prerequisite: SOC 100. Statistical methods and reasoning will be used to analyze and clarify sociological information; Also, operationalizing variables; database management; probability; descriptive statistics; inferential statistics; and data presentation. Software applications, specifically SPSS and SAS, familiarize students with recent and powerful technology in the field. Offered Every Semester.

Equivalent Course: SOC 299

SOC 302 QUALITATIVE METHODS

3, 3/0; RE23

Prerequisites: SOC 100. Introduces students to the basics of conducting qualitative field research. Requires original qualitative research projects. Prepares students for senior-level capstone coursework. Offered occasionally.

SOC 310 SOCIOLOGY OF SEX AND GENDER

3, 3/0; DI23

Critical examination of the roles women and men play in society; social statuses of women and men will be analyzed historically, comparatively, demographically, theoretically, and biologically; sociological implications of sex inequality in the economy and political systems, marriage, family relationships, and other social roles. Offered occasionally.

SOC 312 WOMEN IN SOCIETY

3, 3/0; DI23

Multifaceted analysis of women in society; women's issues in relation to the social and natural sciences; critical examination of modern societies in light of women's perspectives. Offered occasionally.

SOC 320 SOCIOLOGY OF THE FAMILY

3, 3/0

Prerequisite: SOC 100. The family as a social institution, its historical development, function and structure, and interaction with other institutions; cross-cultural comparisons are made. The current status of the family, diversity in contemporary American families, as well as stability and change in the life course of families. Offered occasionally.

SOC 321 THE AFRICAN AMERICAN FAMILY

3, 3/0; DI23

Prerequisite: SOC 100. The examination of the relationship between American social institutions and the African American family and familial relations within the African American family. Offered occasionally.

Equivalent Course: AAS 321

SOC 322 SOCIOLOGY OF CHILDHOOD AND YOUTH

3, 3/0

Prerequisite: SOC 100. The social construction of childhood and adolescence; interactive nature of the socialization process; children's production of peer culture; global social problems faced by children and youth. Offered occasionally.

SOC 323 SOCIOLOGY OF EDUCATION

3, 3/0

Prerequisite: SOC 100. The social organization of education in the U.S. and elsewhere, and schools as social institutions reflecting and influencing society; roles and behaviors of participants in the educational system, including educational goals, theories, philosophies, and methods; educational achievements, historical developments, and future trends. Offered occasionally.

SOC 324 SOCIOLOGY OF SPORT

3, 3/0

Presents an application of the sociological perspective to sport; focuses on the social organization of sports-related activities; the norms, goals, and values of sport using theoretical frameworks and empirical tools of the social sciences. Offered occasionally.

Equivalent Course: HPR 319

SOC 325 SOCIOLOGY OF MEDIA

3, 3/0

Prerequisites: SOC 100 or 6 credit hours of sociology. The role of film and photography on social interactions and memories; the contradictions and challenges of social media; the social and political potential of various media; the saturation or oversaturation of media in our lives. Key texts from leading authors and thinkers in the field of sociology of media. Offered occasionally.

SOC 326 BLACK FEMINIST THOUGHT

3, 3/0

This course provides an introduction to Black feminist thought from the 19th century through the present. Topics include the origins and development of intersectional thinking, intersectionality in contemporary social thought, and critical race theory. The course draws from multiple academic disciplines, public intellectualism, and activist work. Offered occasionally.

Equivalent Courses: AAS 326, WGS 326

SOC 328 SOCIOLOGY OF RELIGION

3, 3/0

Prerequisite: SOC 100. Theories in the sociology of religion will be examined. Emphasis is upon religion and social change; religion in society; church and sect; social class and religion; the role of the minister, priest and rabbi. Offered occasionally.

SOC 330 SOCIAL PSYCHOLOGY

3, 3/0

Prerequisite: SOC 100. Human motivation and the nature of attitudes, including attitude change and stability; social phenomena, such as interpersonal perception and behavior, role prescriptions and role conflict, prejudice, and conflict resolution. Offered Every Semester.

SOC 331 SOCIOLOGY OF GROUP DYNAMICS

3, 3/0

Prerequisite: SOC 100. The social structure and social dynamics of social groups, including the division of labor, types of leadership, communication and authority structures, social conflict, and social control mechanisms. The relationship of the individual to the group; comparisons of different types of "natural" groups such as family, peers, work groups; and the use of "experimental" groups to investigate various aspects of group life. Offered occasionally.

SOC 333 SOCIOLOGY OF SOCIAL MOVEMENTS

3, 3/0

Prerequisite: SOC 100. Social movements, their character, development, dynamics, and consequences; the relationship between discontent at the individual and wider social levels. Selected social movements and sociological theories. Offered occasionally.

SOC 340 SOCIOLOGY OF THE CITY

3, 3/0

Prerequisite: SOC 100. The social organization of urban life in the U.S. and elsewhere, with emphasis on the growth and development of cities and metropolitan areas; lifestyle in the city and suburbs; the relationship of power and social control to urban stratification and the distribution of wealth; racial and ethnic distribution and relationships in urban settings; such urban problems as poverty, blight, crime and violence; and urban planning and redevelopment. Offered occasionally.

SOC 350 POWER, CLASS, AND INEQUALITY

3, 3/0; DI23

Prerequisite: SOC 100. Historical and contemporary dimensions of social inequality and power differentials in the United States and globally; contrasting theoretical interpretations of the origins and significance of social inequality, including the intersectional relationship between inequality on the basis of gender, race, ethnicity, and class; current trends and projected transformations in social inequality. Offered occasionally.

SOC 351 SOCIOLOGY OF RACE AND ETHNICITY

3, 3/0; DI23

Prerequisite: SOC 100. The study of racial and ethnic groups in American and other societies; focuses on forms, causes, and effects of prejudice and ethnic conflicts, and the changing relationships of these groups to the larger society. Possible solutions to social problems involving issues of race and ethnicity are also explored. Offered Every Semester.

Equivalent Course: AAS 351

SOC 352 SOCIOLOGY OF AGING

3, 3/0

Prerequisite: SOC 100. How society structures the experience of aging; major transitions and role changes experienced by the elderly within social institutions such as family, the economy, and religion; understanding the way these same institutions adapt to an aging population. Includes investigation of programs and policies aimed at assisting individuals at varying levels of independence throughout the aging process. Offered occasionally.

SOC 353 ENVIRONMENT AND SOCIETY

3, 3/0

Prerequisite: SOC 100 or 6 credit hours of sociology. Analyzes the relationship of society and the natural environment (global, national, and local levels) using empirical and theoretical methods. Specific topics include the "toxics crisis," Central America, work, and environmental racism. Interprets societal structures and processes that lead to ecological crises and responses to them. Offered occasionally.

SOC 360 SOCIOLOGY OF WORK

3, 3/0

Prerequisite: SOC 100. The social relations surrounding the world of work as the contours of modern urban-industrial society emerge, mature, and begin to decline; typical forms of work in industry; the functions of work organizations; changing of structures of social class; patterns of labor relations; the transfer of these forms to non-industrial and government contexts; how these factors influence the interest and meaning workers find in their work; the consequences for social action and social change. Offered occasionally.

SOC 366 CULTURAL PROFICIENCY AND PUBLIC ACHIEVEMENT

4, 3/0; DI23

Public achievement serves as a framework for analyzing diverse student perspectives, opinions, and assets to identify and meet the needs of different cultural groups and to learn to work effectively in cross-cultural settings. Students will be provided with practical experiences in implementing a project with children in a local school district. Offered occasionally.

Equivalent Course: SPF 366

SOC 370 SOCIOLOGY OF DEVIANT BEHAVIOR

3, 3/0

Prerequisite: SOC 100. Deviant behavior in American society; its nature, theoretical perspectives, and societal reactions; deviance as both an interactive and political process, with special attention paid to the development of deviant identities; specific behaviors may include substance abuse, sexual deviance, crime and delinquency, mental illness, and social protest. Offered occasionally.

SOC 380 SOCIOLOGY OF CRIME

3, 3/0

Prerequisite: SOC 100. Crime, its nature, variation, and causation; social responses to crime; methods of crime prevention, punishment, and treatment of offenders. Theoretical perspectives and controversies are presented in social and historical context. Offered occasionally.

SOC 381 SOCIOLOGY OF VIOLENCE

3, 3/0

Prerequisite: SOC 100. An analysis of various manifestations of violence. Theories of violence will be presented, as well as investigation into such specific topics as child abuse, battered spouses, rape, violence in schools, and collective violence; programs which deal with violence. Offered occasionally.

SOC 382 SOCIOLOGY OF LAW

3, 3/0

Prerequisite: SOC 100. The numerous ways in which law permeates all forms of social behavior; focuses on the law itself and the social context within which it has been created and exists; dominant theoretical perspectives and sociological methods used to explain the interrelationships between law and society, including types and purposes of law, major legal organizations, the lawmaking process, law and social control, law and dispute resolution, law and social change, and the legal profession. Offered occasionally.

SOC 383 SOCIOLOGY OF PUNISHMENT AND CORRECTIONS

3, 3/0

Prerequisite: SOC 100. Recent theories and research findings regarding correctional practice; offender typologies, the nature and forms of treatment, and obstacles to treatment. Offered occasionally.

SOC 389 TOPIC COURSE

3, 0/0

Current advanced topics in Sociology. Offered occasionally.

SOC 390 SOCIOLOGY OF JUVENILE DELINQUENCY

3, 3/0

Prerequisite: SOC 100. Juvenile delinquency; description, extent, and sociological theories of explanation; institutions and agencies dealing with and/or attempting to prevent delinquency, including courts, law enforcement agencies, social service agencies, and educational institutions; development of data. Offered occasionally.

SOC 391 SOCIOLOGY OF ADDICTION

3, 3/0

Prerequisite: SOC 100. Alcohol and drug abuse as a social problem and a sociological phenomenon; nature of drug and alcohol abuse, the situations in which this behavior occurs, and the characteristics of users; legal, medical, and other efforts made to influence addicts. Offered occasionally.

SOC 392 SOCIOLOGY OF SEXUAL BEHAVIOR

3, 3/0

Prerequisite: SOC 100. Recent sociological findings concerning sexual behavior as a social process; the nature of various sexual practices, such as homosexuality and sadomasochism in light of sociological theory; sociological literature concerning sexual behavior with special emphasis on the interactionist approach. Offered occasionally.

SOC 393 SOCIOLOGY OF MENTAL ILLNESS

3, 3/0

Prerequisite: SOC 100. Sociological perspectives on mental health and illness, including their social histories; includes evaluation of social factors and processes involved in modern approaches to the causes and treatment of mental illness; problems of definition and diagnosis; recent research findings in areas of epidemiology, institutional care and control of the mentally ill, the care of mental patients, and social issues. Offered occasionally.

SOC 400 FOUNDATIONS OF SOCIOLOGICAL THOUGHT

3, 3/0

Prerequisites: SOC 100 and 6 additional credit hours in sociology. Ideas developed by the early founders of sociology, including Karl Marx, Max Weber, Emile Durkheim, and their contemporaries. Offered Every Semester.

Equivalent Course: SOC 204

SOC 408 CONTEMPORARY SOCIOLOGICAL THEORY

3, 3/0

Prerequisites: SOC 100 and 6 additional credit hours of sociology. The significance and uses of sociological theory; includes the major current approaches to understanding society and social life, such as contemporary Marxism, conflict theory, functionalism, and the interpretive theories, such as symbolic interactionism, phenomenological sociology, and ethnomethodology; and theories of rational choice such as behavioral sociology and exchange theory. Newly developing perspectives such as feminist theory and postmodernism. Offered Every Semester.

SOC 430 SOCIOLOGY OF INTERNATIONAL DEVELOPMENT AND UNDERDEVELOPMENT

3, 3/0

Prerequisites: SOC 100 and upper-division status. Societal development and change on an international level, with emphasis on the third world; topics include the major sociological theoretical models, conceptual frameworks and assumptions of development; the emergence and dynamics of the world system; the international division of labor; the interplay of development with gender, race, and ethnicity; social policy alternatives and strategies of social change and liberation. Offered occasionally.

SOC 484 PRACTICUM IN TEACHING SOCIOLOGY

3, 3/0

Prerequisites: SOC 100 and 15 additional credit hours in Sociology; 3.0 GPA and 3.0 in Sociology. How sociology classes are constructed and administered. Instruction in lecture development, exam construction, and record keeping. Experience in mentoring and helping to prepare students for exams. Required journal and analysis paper. Offered occasionally.

SOC 485 MOCK TRIAL

1-3, 1/0

Prerequisite: Upper-division standing or permission of instructor. Simulation of a trial court or appellate court proceeding involving teams of students acting as prosecutor/plaintiffs' attorneys, defense attorneys, and witnesses. Students develop case strategy, analyze evidence, integrate legal precedent, prepare a written brief, question witnesses, and present oral arguments to the court in opening and closing statements. Final project is a mock trial presentation held in a formal courtroom setting. Offered occasionally.

Equivalent Courses: CRJ 485, PSC 485

SOC 486 PRACTICUM IN APPLIED SOCIOLOGY

3, 3/0

Prerequisite: SOC 100. The study of field research techniques in the classroom, subsequently applied during the completion of 75 hours of field experience working with an agency or organization in the community. Offered occasionally.

SOC 488 INTERNSHIP IN SOCIOLOGY

1-15, 0/0

Prerequisites: SOC 300 or SOC 302; SOC 400; senior standing; faculty intern supervisor permission. Supervised fieldwork in appropriate agencies where students expand their knowledge of sociology and establish interactive ties in the job market. Academic components include orientation, training sessions, ongoing conferences with faculty/ agency supervisor, log/journal of the field experiences, and final report. Offered occasionally.

SOC 490 SEMINAR IN SOCIOLOGY

3, 3/0

Prerequisites: SOC 100, SOC 300 or SOC 302, SOC 204, senior status. Research in selected area(s) of sociology; designing and conducting original social research. Required for sociology majors. Offered Every Semester.

SOC 491 TOPICAL SEMINAR

3, 3/0

Prerequisites: SOC 100, 6 credit hours of sociology in a related field, and permission of instructor. In-depth special problems in sociology. Interested students should contact a member of the sociology faculty, who will secure approval from the Sociology Department. The course is then listed in the master schedule with a subtitle indicating the area of special concentration.

SOC 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

SOC 497 SPECIAL WORKSHOP

3, 0/0

Sociology workshop. Offered occasionally.

SOC 499 INDEPENDENT STUDY

3-12, 0/0

Offered occasionally.

Speech Language Pathology (SLP)

SLP 100 STUDENT SPEECH CLINIC

1, 0/0

Accent reduction services for non-native speakers of American English. Hours by arrangement. Offered fall and spring only.

SLP 101 AMERICAN SIGN LANGUAGE I

3, 3/0; WL23

Fundamentals of American Sign Language (ASL), including basic grammatical features, language functions, and finger spelling. Students will gain adequate receptive and expressive skills for communicating with deaf individuals using ASL. Supplemental lectures focus on issues related to deafness, deaf culture, and signed languages. Offered Every Semester.

SLP 102 AMERICAN SIGN LANGUAGE II

3, 3/0; WL23

Prerequisite: SLP 101. Continuation of SLP 101. Students gain additional knowledge of American Sign Language (ASL) and the deaf community; increases competence in ASL conversational skills. NOTE: For some majors, SLP 101 AND SLP 201 serve as a foreign language equivalent. Check with your department. Offered every semester.

Equivalent Course: SLP 201

SLP 201 AMERICAN SIGN LANGUAGE II

3, 3/0

Prerequisite: SLP 101. Continuation of SLP 101. Students gain additional knowledge of American Sign Language (ASL) and the deaf community; increases competence in ASL conversational skills. NOTE: For some majors SLP and SLP 101 and SLP 201 serve as a foreign language equivalent. Check with your department. Offered every semester.

Equivalent Course: SLP 102

SLP 205 INTRODUCTION TO SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

3, 3/0

Introduction to the professions of speech-language pathology and audiology. Roles, responsibilities, and potential employment settings for each profession discussed. Communication and writing competencies needed for professional success reviewed. Offered fall only.

Equivalent Course: SLP 220

SLP 206 BUILDING SOCIAL CONNECTIONS: COMMUNICATION, LANGUAGE AND CONVERSATION

3, 3/0

Course Description Introduction to the constructs of communication, language, and conversation. Impact of communication, language, and conversational skills in daily life. Development of communication, language, and conversation children birth to five years old. Offered every spring.

SLP 220 INTRODUCTION TO COMMUNICATION DISORDERS

3, 3/0

Classification and causes of speech, language, and hearing disorders in children and adults; methods of treatment for communication disorders and suggestions for prevention; basic information on typical and atypical speech, language, and hearing development; videotaped observation of individuals presenting various communication disorders. Not open to speech-language pathology majors except by advisement. Offered spring only.

Equivalent Course: SLP 205

SLP 301 ADVANCED SIGN LANGUAGE

3, 3/0

Prerequisites: SLP 101 and SLP 102 or SLP 201. This is the final course in the American Sign Language (ASL) sequence designed to promote advanced competence in ASL conversational skills to a level that is recommended for work in schools and public agencies that serve the deaf and hard-of-hearing population. Offered every fall.

SLP 302 CLINICAL PHONETICS

3, 3/0

Production, acoustic analysis, and representation of American English speech sounds, including the various English dialects; application of phonetics to deviations in speech. Students will use International Phonetic Alphabet (IPA) symbols to transcribe typical and atypical speech. Sophomores must obtain permission of instructor. Offered fall only.

SLP 303 LANGUAGE ACQUISITION

3, 3/0

Prerequisite: SLP 302. Corequisite: SLP 329. Children's acquisition of phonology, morphology, syntax, semantics, and pragmatics; structure and function of language of normal children at different levels of development; comparison and contrast of theories of language acquisition. International and cultural variations are considered. Offered spring only.

SLP 304 ANATOMY AND PHYSIOLOGY OF SPEECH AND HEARING MECHANISMS

3, 3/0

Anatomy and physiology of normal speech and hearing mechanisms; possible deviations; embryonic development; neurology associated with production and reception of oral language. Offered fall only.

SLP 305 COMMUNICATION DISORDERS I

3, 3/0

Prerequisites: SLP 302, SLP 303 and SLP 304. Provides students with knowledge of the scope and responsibilities of the speech-language pathologist; basic knowledge concerning etiology, assessment, and intervention techniques related to articulation, phonology, phonemic awareness in reading and writing, craniofacial anomalies, and fluency disorders, including bilingual and dialectal considerations. Offered spring only.

SLP 314 AUDIOLOGY

3, 3/0

Corequisite: SLP 328. Hearing and hearing disorders for speech-language pathologists. Anatomy and physiology of the ear and pathologies of the auditory mechanism, decibel notation, and pure-tone audiometry and tympanometry. Offered spring only.

SLP 328 AUDIOLOGY LAB

1, 0/2

Corequisite: SLP 314. Operation and listening check of the pure-tone audiometer, pure-tone air-conduction threshold testing, screening, otoscopy, tympanometry, and reporting test results. Offered spring only.

SLP 329 LANGUAGE ACQUISITION LAB

1, 0/2

Corequisite: SLP 303. Observation of language used by typical children. Practice with procedures to collect and analyze typical language. Offered spring only.

SLP 330 DEAF CULTURE IN AMERICA

3, 3/0

Study of Deaf culture in America, the effects of hearing loss, communication options and the use of assistive technologies. Study of cultural norms, values, traditions, and rules of social behavior of the Deaf community. Offered every other spring.

SLP 389 TOPICS COURSE

1-3, 0/0

SLP 400 LANGUAGE AND LITERACY FOR SPEECH-LANGUAGE PATHOLOGISTS

3, 3/0

Prerequisites: SLP 303 and 329. Role of the speech-language pathologist (SLP) in assessing and treating children with language-based literacy impairments; relationships between speaking, listening, reading and writing; linguistic components required for spoken language and literacy; language-based literacy disorders; assessment and treatment of language literacy impairments. Offered occasionally.

SLP 401 AURAL REHABILITATION

3, 3/0

Pre-requisites: SLP 303, SLP 314. Effects of hearing loss upon speech perception, speech production, and language development; amplification and intervention options for individuals with hearing loss; tinnitus assessment and treatment options; vestibular system assessment; classroom acoustics; definition, diagnosis, and management of auditory processing disorders. Offered fall only.

SLP 402 AUDIOLOGY IN THE SCHOOLS

3, 3/0

Prerequisites: Junior level status and Instructor permission. Introduction to educational audiology and support of students who are hard-of-hearing/have an auditory processing disorder in the classroom; hearing aids and hearing aid listening checks, FM systems, cochlear implants, auditory processing disorders, classroom acoustics, classroom accommodations, and interprofessional collaboration. Offered every spring.

SLP 405 COMMUNICATION DISORDERS II

3, 3/0

Prerequisites: SLP 304, SLP 305. Etiology, assessment, and intervention techniques related to voice disorders, developmental and acquired motor speech disorders, aphasia, traumatic brain injury, dysphagia, and augmentative communication. Cultural and bilingual issues are considered. Offered spring only.

SLP 411 INTRODUCTION TO LANGUAGE DISORDERS IN CHILDREN

3, 3/0; IN23, RE23

Prerequisite: SLP 303. Introduction to childhood language disorders, including the demographics and characteristics features of language disorders. Cultural and bilingual issues are considered. Offered fall only.

SLP 412 SPEECH ACOUSTICS AND PERCEPTION

3, 3/0

Prerequisites: SLP 302, SLP 304, SLP 314. Corequisite: SLP 428. Study of the scientific principles underlying the physiology, acoustics, and perception of normal speech production as a basis for subsequent understanding of disordered speech. Topics include basic concepts of sound, motor and acoustic theories of speech production, speech perception, instrumentation used to measure speech processes, and application to speech pathology. Offered fall only.

SLP 424 SPEECH-LANGUAGE PATHOLOGY PROGRAMS IN SCHOOLS

3, 3/0

Pre-requisites: SLP 305, SLP 314, SLP 411. In-depth examination of speech-language pathology in schools, including legislative foundations, current models of service delivery, assessment and intervention procedures, organization and administration of programs, emerging trends shaping the future of school speech-language pathology programs. Offered every spring.

SLP 428 ACOUSTICS LAB

1, 0/2

Corequisite: SLP 412. Direct and guided use of special instrumentation essential to the collection, measurement, and/or analysis of the acoustic components of speech sounds. Focus areas are respiration, phonation, articulation, and resonance. Offered fall only.

SLP 429 CLINICAL ACTIVITY

1, 0/3

Prerequisites: SLP 303, SLP 305, SLP 314. Observation of evaluation and treatment sessions in speech-language pathology. Offered fall and spring only.

SLP 495 SPECIAL PROJECT

1-3, 0/0

Offered occasionally.

SLP 497 WORKSHOP

1-3, 0/0

Offered fall and spring only.

SLP 499 INDEPENDENT STUDY

3, 0/0

Offered fall and spring only.

Television and Film Arts (TFA)

TFA 189 TOPIC COURSE

3, 3/0

Topic course. Offered occasionally.

TFA 201 INTRODUCTION TO TELEVISION AND FILM ARTS

3, 3/0

Introduction to the history of storytelling and the various ways in which stories can be told today. Emphasis on television, film, theater, and other visual media. Offered fall only.

TFA 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

TFA 301 TV AND FILM CRITICISM

3, 3/0

Students study great directors and the screenplays they have produced, focusing on analyzing story structure, characters, and theme of screenplays that compose the established canon. Directors include Spielberg, Kubrick, Hitchcock, Wilder, Allen and Tarantino. Offered spring only.

TFA 350 CINEMATOGRAPHY

3, 3/0

Prerequisites: COM 312. Intermediate study of the principles of cinematography. Emphasis on aesthetics, exposure, lighting, and selection of film, camera, lenses and filters. Offered occasionally.

TFA 389 TOPIC COURSE

3, 3/0

Topic course. Offered occasionally.

TFA 401 PRODUCING SHORT FILMS I

3, 3/0

Prerequisites: TFA 301 and COM 312. Students form virtual video production companies and work collaboratively with other students, alternately assuming the roles of writer, producer, director, and production crew. In the process, students develop the ability to assess their strengths, weaknesses, and interests. Offered fall only.

TFA 420 PRODUCING SHORT FILMS II

3, 3/0

Prerequisite: TFA 401. Students function as true "auteurs" using advanced techniques to write, produce, direct, and edit their own single-camera short video project. Emphasis on the effectiveness of the story rather than production quality. Critiques from peers and instructors focus on developing storytelling skills. Offered spring only.

TFA 450 SENIOR PROJECT

3, 3/0; IN23, RE23

Prerequisite: TFA 420. Students write produce a television pilot in the genre of their choice. The show will be thirty-minutes. The students in the class will determine the TV pilot's content and production values. There will be a public screening for the final project. Offered fall only.

TFA 460 ADAPTATION

3, 3/0

Prerequisite: Instructor permission. Students adapt literature for television or film. They choose a short story, poem, or other piece of literature and translate it into a short script. Offered occasionally.

TFA 470 CAREERS IN TELEVISION

3, 3/0

Prerequisites: Instructor Permission. This course is offered in New York City as part of the TFA Semester in NYC program. A historical analysis of the television industry combined with a comprehensive curriculum covering the financing, production, distribution and marketing of television programming. Offered annually.

TFA 471 CAREERS IN FILM

3, 3/0

Prerequisites: Major in Television and Film Arts or Media Production, and instructor permission. A historical analysis of the film industry combined with a comprehensive curriculum covering the financing, production, distribution and marketing of films. Offered annually.

TFA 480 ADVANCED DIRECTING/PRODUCING I

3, 3/0

Students focus on directing the actor for a single-camera production. Each student directs short scenes from selected plays, then shoots a scene (single camera) as a final project. The class and students from other departments act as the "Acting Company." Offered spring only.

TFA 481 ADVANCED DIRECTING/PRODUCING II

3, 3/0

Prerequisite: TFA 480. Students direct a scene or series of scenes from a previously produced film, television program, or play and shoot it (multi-camera) as a final project. The class and students from other departments acts as the "Acting Company" and "Production Company." Offered occasionally.

TFA 488 INTERNSHIP

3-6, 3/0

Students work at organizations to help further their careers in TV, film, or digital media. Supervised field experience in a professional setting for students who have completed extensive academic preparation in the discipline; weekly group meeting; 150 hours of field work for 3 credits.

TFA 495 SPECIAL PROJECT

1-3, 0/0

TFA 499 INDEPENDENT STUDY

3, 0/0

Theater Arts (DAN, THA)

Dance (DAN)

DAN 189 TOPIC COURSE

1-3, 0/0

Lower level Topics Course in Dance.

DAN 200 MODERN DANCE TECHNIQUE I

3, 2/2

The basic tenets and fundamental principles of modern dance. An understanding of the dancer as the interpretive artist through technical dance instruction, historical significance, and aesthetic discovery. Dance performance attendance is required. Offered every semester.

DAN 201 TEACHING CREATIVE MOVEMENT

3, 2/2

Preparation to teach creative movement to various populations. Emphasis on physical exploration of dance concepts for building psychomotor, cognitive, and affective skills. Theory, method, and lesson development is examined for implementation of non-competitive creative play, structured improvisations, and dance technique. Dance performance attendance is required. Offered alternate spring semester.

DAN 214 INTRODUCTION TO DANCE TECHNIQUES

3, 2/2

A studio course designed to introduce the novice student to the cultural and aesthetic values of dance. Physical practice of a variety of dance techniques: body as the instrument for dance, kinesthetic awareness, a codified terminology, and the influential aesthetic elements that define various dance techniques. Dance performance attendance is required. Offered every semester.

DAN 220 BALLET TECHNIQUE I

3, 2/2

A basic appreciation of the origins of classical ballet. Students will develop an understanding of classical dance through instruction of ballet technique: the influential aesthetic elements that define basic ballet, a codified physicality and terminology, and the cultural and historical influences. Dance performance attendance is required. Offered every semester.

DAN 224 DANCE APPRECIATION

3, 3/0; AR23

Examination of the cultural and aesthetic values of dance. Analysis of the purpose, creative process, genres, and styles of the art form. Dance performance attendance is required. Offered every semester.

DAN 230 DANCE TECHNIQUES FROM THE AFRICAN AMERICAN PERSPECTIVE

3, 2/2

The continuity of African American dance from traditional African to contemporary American through dance technique. Introduction to several dance forms: traditional, modern, and jazz; the cultural history that influenced these dance forms; and the contributions of significant choreographers. Dance performance attendance is required. Offered fall semester.

Equivalent Course: AAS 230

DAN 234 THE POLITICS OF BLACK DANCE IN AMERICA

3, 3/0; DI23

The development of African American dance and the contributions of African American artists through lecture and film. Emphasis on the evolution of traditional African dance forms and their influence on the contemporary dance vernacular. Dance performance attendance is required. Offered as required.

Equivalent Course: AAS 234

DAN 244 CULTURAL DANCE FORMS

3, 2/2

An introduction to social dance as a participatory and culturally-specific dance style from the physical and historical contexts. In addition to physical practice, students will read and discuss articles. Dance performance attendance is required. Offered as required.

DAN 250 JAZZ DANCE TECHNIQUE I

3, 2/2

Technique, studies, and compositional problems illustrating the diverse possibilities of jazz dance, with special attention to the ethnic foundation of this form. Dance performance attendance is required. Offered alternate fall semester.

Equivalent Course: AAS 250

DAN 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

DAN 301 CREATIVE MOVEMENT AND KINESTHETIC METHODS

3, 3/0

Prerequisites: CWP102. Examination, application, and analysis of the methods and benefits of the kinesthetic teaching style; including educational theory, purpose, and practice. Research in designing, developing, and implementing psychomotor, cognitive, and affective skill building lesson plans using kinesthetic methods. Dance performance attendance is required. Offered alternate fall semester.

DAN 302 MODERN DANCE TECHNIQUE II

3, 2/2

Prerequisite: DAN 200. Principles of movement in relation to dynamics, rhythm, and space. Introduction to improvisation and modern dance history; designed to develop and strengthen technical dance skills and artistry. Dance performance attendance is required. Offered spring semester.

DAN 303 DANCE COMPOSITION

3, 2/2

Prerequisite: Instructor Permission. Techniques of composition; practical research in choreography through improvisation; creation of individual and group compositions. Dance performance attendance is required. Offered alternate fall semester.

DAN 310 DANCE FOR MUSICAL THEATER

3, 2/2

Prerequisite: DAN 250. Emphasizes technique and history of the diverse dance forms required in the music theater. Dance performance attendance is required. Offered alternate spring semester.

DAN 312 MODERN DANCE TECHNIQUE III

3, 2/2

Prerequisite: DAN 302. Continuation of DAN 302. Emphasis on expanding and deepening technical range, quality of movement, and creative ability through improvisation and modern dance history. Dance performance attendance is required. Offered spring semester.

DAN 320 REHEARSAL AND PRODUCTION

1, 0/0

Prerequisite: Audition. Students participate in building a finished dance production, including audition, dance rehearsals, technical rehearsals, and performances. By audition only. May be repeated. Offered every semester.

DAN 324 THE GLOBALIZATION OF DANCE

3, 3/0

A survey course examining the origins and evolution of folk, social, and concert dance forms from the primitive period to contemporary time. Analysis of the role of major figures and the impact of significant events on the value of dance in society. Dance performance attendance is required. Offered alternate fall semester.

DAN 330 BALLET TECHNIQUE II

3, 2/2

Prerequisite: DAN 220. Comprehensive examination of the technique and historical background of ballet explored in depth through studio work and lecture; emphasis on strengthening technical range and understanding of basic concepts and vocabulary. Dance performance attendance is required. Offered fall semester.

DAN 340 BALLET TECHNIQUE III

3, 2/2

Prerequisite: DAN 330. Continuation of DAN 330. Intermediate-level ballet technique course with emphasis on applications of idiokinetics. Dance performance attendance is required. Offered fall semester.

DAN 350 TAP DANCE TECHNIQUE I

1, 1/1

Prerequisite: Instructor Permission. First course in a two-semester sequence for majors and minors in the performing arts. Minimum two hours of outside practice weekly plus familiarity with selected readings. Students comprehend and execute an elementary vocabulary of stage tap. Dance performance attendance is required. Offered alternate spring semester.

DAN 389 TOPIC COURSE

3, 0/0

Upper level Topics Course in Dance.

DAN 401 TEACHING DANCE

3, 3/0

Prerequisite: Instructor Permission. The methods and materials used in teaching dance to students of various ages and backgrounds, explored through research and practical teaching experience. Anatomical and kinesiological principles, injury prevention and treatment. Dance performance attendance is required. Offered alternate spring semester.

DAN 402 ADVANCED DANCE TECHNIQUES

3, 2/2

Prerequisite: Instructor permission. Key principles and praxes of iconic dance practitioners and contemporary choreographers from various genres and attributes of dance. Explored through a three-dimensional perspective of theory, technical practice, and choreography and repertoire study, students reflect on how culture and personal experience impact and inspire the perspective and development of dance technique and performance. Dance performance attendance is required. Offered as required.

DAN 450 TAP DANCE TECHNIQUE II

1, 1/1

Prerequisite: DAN 350 or Instructor Permission. Advanced vocabulary, styles, and solo/duet work. Some creative work required. Comprehend and execute a substantial portion of traditional Broadway requirements. Dance performance attendance is required. Offered alternate spring semester.

DAN 483 BSC LED STUDY AWAY PROGRAM

1-15, 0/0

Acceptance into the program required.

DAN 495 SPECIAL PROJECT

1-3, 0/0

Individual Special Project in Dance. Offered every semester.

DAN 499 INDEPENDENT STUDY

3-12, 0/0

Independent Study in Dance. Offered every semester.

Theater Arts (THA)

THA 106 INTRODUCTION TO THEATER ARTS

3, 3/0; AR23

An introduction to the art of theater. Examination and analysis of the creative process, elements of production, history, genres and styles of the art form. Attendance at live theater is required. Offered every semester.

THA 107 THEATER PERFORMANCE FOR NON-MAJORS

3, 2/2

Prerequisite: Instructor permission. Participation in the rehearsal and performance of a Buffalo State College Theater Department production. Offered as required.

THA 189 TOPICS COURSE

1-3, 0/0

Lower level topics course in Theater Arts. Offered occasionally.

THA 200 VOICE AND MOVEMENT

3, 2/2

Integrated studio/lecture course introducing the fundamental principles of healthy voice and movement practices. Physical practice of techniques designed to connect authentic breath and alignment, and to speak and move efficiently and effectively. Through practical exercises, exploratory activities, and theoretical discussions, students will develop physical and vocal skills for effective stage performance. Offered annually.

THA 216 THEATER FUNDAMENTALS

3, 3/0

Introduction to the art of theater for department majors. Examines elements of production, history, genres, and styles of theater. Attendance at live theater performance required. Offered as required.

THA 218 SCRIPT ANALYSIS I: PLAY READING

3, 3/0

Pivotal plays, classic and modern, that have had an impact on theater. Play structure will be examined and analyzed. Attendance of live performances is required. Offered spring only.

THA 226 ACTING I

3, 2/2

Introduction to the fundamental demands of the acting process. Focus and concentration development, improvisation, scene work, improving communication skills and performance; identify and develop the actor's role in the artistic process. Offered every semester.

THA 227 ACTING II: SCENE STUDY

3, 2/2

Prerequisite: THA 200 and THA 226. The fundamental demands of preparing, rehearsing, and performing scenes from contemporary plays. Student actors will focus on character development, research, and script analysis as they synthesize concepts from THA 226. Apply previously learned acting skills to the preparation, rehearsal, and performance scenes. Students will further identify themselves as young theater artists and their personal place in the creative process of making theater. Offered Every Semester.

THA 230 PRACTICUM I: INTRODUCTION TO THEATER TECHNOLOGY

1, 0/1

Introduction to the elements of technical theatrical; costume, scenery, sound, and lighting production including the proper use of tools and equipment. Emphasis on safety and teamwork. Offered every semester.

THA 231 THEATER PRACTICUM II

1, 0/1

Laboratory experience as a run-crew member for a departmental theater production. Offered Every Semester.

THA 232 STAGE MANAGEMENT

3, 3/0

Instruction of the student in the duties, responsibilities and techniques of a successful stage manager. Preparation of all materials needed to run a rehearsal and maintain a performance as the stage manager. Participation in one of the departmental productions to explore hands-on work and interactive experiences. Offered as required.

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HA 234 INTRODUCTION TO THEATER DESIGN

3, 3/0

Fundamentals of theatrical design using period research, graphic tools and presentation skill. Students are required to attend live theater performances. Offered annually.

THA 235 COSTUME CONSTRUCTION I

3, 2/2

Prerequisite: THA 230. The foundation of costume construction. Basic costuming from the ground up with emphasis on period construction, theatrical techniques, and nonconventional methods used in theater, dance, and screen through vocabulary, demonstration, and hands-on production. Offered as required.

THA 245 STAGE COMBAT I

3, 2/2

Prerequisite: Instructor Permission. The study of unarmed stage combat techniques, the creation and performance of choreographed fight scenes, physical control and safety. This course is the first of three required for Society of American Fight Directors Actor/Combatant certification. Offered as required.

THA 295 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Instructor Permission. Scholarship or creative work conducted under the supervision of a faculty member. Offered occasionally.

THA 300 VOICE AND MOVEMENT II

3, 2/2

Prerequisite: THA 200. Intermediate voice and movement course for actors, integrates previously learned voice and movement vocabularies with a variety of acting styles. Introduction of the International Phonetic Alphabet and the General American accent. Offered every fall.

THA 316 SCRIPT ANALYSIS II

3, 3/0

Prerequisite: CWP 102. Exploration of scripts as unique forms of writing for public communication and theatrical production. Analysis of playwrights' methods, dramatic structure, historical context and language usage. Attendance of live theater is required. Offered fall only.

THA 317 THEATRE HISTORY: ANCIENT TO BAROQUE

3, 3/0

Prerequisite: CWP 102 or THA 106. Origins and development of physical theater and theater literature from the ancient period to the baroque period; its function in society and its historical context in both Western and global civilizations. Students examine how theater as an art form is a reflection of or reaction to the socioeconomic, scientific, political, philosophical, and other artistic forms of its surroundings. Students attend live performance. Offered fall only.

THA 318 THEATER HISTORY: BAROQUE TO MODERN

3, 3/0

Prerequisite: Sophomore status and above. The origins and development of physical theater and theater literature from the baroque period to contemporary theater; its function in society and its historical context in both Western and global civilizations. Students read plays and examine how theater as an art form is a reflection of or reaction to the socioeconomic, scientific, political, philosophical, and other artistic forms of its surroundings. Students attend live performances. Offered spring only.

THA 327 ACTING III: STYLES

3, 2/2

Prerequisites: THA 227 and THA 300. Apply previously learned acting skills to a variety of acting styles in a variety of environments. Student actors will specifically address the demands of physically, intellectually, and emotionally adapting their acting and artistic process. Student actors will also be expected to further define and identify themselves in each new style. Offered spring only.

THA 330 THEATER PRACTICUM III

1, 0/1

Prerequisite: THA 230. Laboratory experience as a crew leader for a departmental theater production. Offered Every Semester.

THA 331 THEATER PRACTICUM IV

1, 0/1

Prerequisite: THA 230. Laboratory experience in the student's area of specialization for a departmental theater production. Offered Every Semester.

THA 332 PERIOD STYLES AND CULTURE

3, 3/0

Prerequisite: CWP 102. A survey of style from early civilization to the present day. Students identify and describe characteristics of architecture and fashion from a variety of viewpoints. From Ancient Egypt through the 20th century visual information is evaluated based on historical roots and evolution. The course provides the vocabulary and identification of period style necessary to examine and evaluate the translation of a period style to the stage or screen. Offered Every Semester.

THA 333 SCENE PAINTING

3, 2/2

Prerequisite: Instructor Permission. Basic scene-painting techniques applicable to theater, film, and video production; hands-on exploration; creating full-scale painted scenery from scaled drawings; paint mixing; faux finishes, including marble, wood grain, brick, and stone; and specialty paint finishes. Offered occasionally.

THA 335 COSTUME DESIGN FOR THEATER

3, 3/0

Prerequisites: THA 234 or Instructor Permission. Introduction to costume design for a variety of period and contemporary genres; script analysis, design theory, historical research, rendering skills, fabric selections. Offered alternate years.

THA 336 LIGHTING TECHNIQUES

3, 3/0

Prerequisite: THA 234 or Instructor Permission. Introduction to lighting design for theater, dance, studio, and industrial applications; principles of optical systems, stage lighting equipment, color media, electricity, control systems, stage lighting, history, and the McCandless stage lighting system; assigned practical experience required. Offered alternate years.

THA 337 SET DESIGN I

3, 3/0

Prerequisite: THA 234 or Instructor Permission. Introduction to theatrical set design: basic design components of line, form, mass, composition, balance, color, and texture as they relate to set design; script analysis, research, color theory, drafting techniques, and mechanical perspective drawing. Offered alternate years.

THA 339 SOUND DESIGN FOR THEATER

3, 3/0

Prerequisite: THA 234 or Instructor Permission. Sound Design and use of sound technology for Theater and live performance. Students will explore the aesthetics, dynamics and technology needed to create effective sound environments for the stage. Attendance at live performances augments course content and is a course requirement. Offered occasionally.

THA 340 PLAYWRITING

3, 3/0

Prerequisite: THA 316 or TFA 301 or ENG 305 or Instructor Permission. Students will use research, script analysis and writing skills to develop and refine the script for a stage or screenplay. Offered as required.

Equivalent Course: ENG 340

THA 345 STAGE COMBAT II

3, 2/2

Prerequisite: THA 245 Stage Combat I or Instructor Permission. The study of weapon specific stage combat techniques, performing choreographed fight scenes with the single weapon. This is the second of three courses required for Society of American Fight Directors Actor/Combatant certification. Offered as required.

THA 346 STAGE COMBAT III

3, 2/2

Prerequisite: THA 345 Stage Combat II or Instructor Permission. Multiple weapon Stage Combat techniques with an emphasis on choreography and application for stage and screen. This is the Third of three courses required for Society of American Fight Directors Actor/Combatant certification. Offered as required.

THA 348 VOICE ACTING FOR ANIMATION AND VIDEO GAMES

3, 2/2

Prerequisites: THA 200 and THA 226. A studio class focusing on voice acting, developing vocal quality and characterization for a variety of genre and media. Offered as required.

THA 350 DIRECTING I

3, 3/0

Prerequisites: TFA 301 or THA 316 and THA 226 or THA 234. Examination of the theater director's craft and responsibilities through lecture and hands-on projects. Offered spring only.

THA 359 MUSICAL THEATER I

3, 2/2

Prerequisite: Instructor permission. An introduction to integrating the necessary singing, dancing and acting skills to meet the requirements of performing in the musical theater. Offered as required.

THA 370 STAGE MAKEUP

3, 3/0

Prerequisite: THA 234 or Instructor Permission. Principles and techniques of theatrical makeup application and design. Offered as required.

THA 389 TOPIC COURSE

3, 0/0

Intermediate to advanced course in Theater Arts. Focus and instructional method will vary. Offered occasionally.

THA 400 VOICE AND MOVEMENT III

3, 2/2

Prerequisite: THA 300. Advanced study of physical, vocal and phonetic skills as they apply to stage and screen. Offered alternate spring semesters.

THA 416 SEMINAR IN THEATER ARTS

1, 1/0; IN23, RE23

Prerequisite: Senior status. Development of skills including defining professional and personal goals, sharpening of critical capacities, and creating and sharing a portfolio or audition presentation. Offered fall only.

THA 421 DRAMA FROM THE AFRICAN AMERICAN PERSPECTIVE

3, 3/0

Prerequisites: CWP 102 or equivalent. An exploratory and critical analysis of African-American playwrights (and playwrights of African decent) and their works. Students will participate in play readings and discussions related to the plays' social and historical context.

Offered biennially.

Equivalent Course: AAS 421

THA 426 ACTING IV: ON CAMERA

3, 2/2

Prerequisite: THA 227. Advanced study in acting styles concentrating on acting for the camera. Offered alternate fall only.

THA 470 ENSEMBLE THEATER

1-3, 2/2

Prerequisite: Instructor Permission. Examination of ensemble theatrical production through preparation and performance of plays.

Offered Every Semester.

THA 483 BSC LED STUDY AWAY PROGRAM

1-15, 0/0

Acceptance into the program required.

THA 488 INTERNSHIP

1-12, 0/0

Prerequisites: Upper-division status and permission of instructor. Supervised field experience in a professional setting for students who have completed extensive academic preparation in the discipline; 50 hours of fieldwork in theater per credit. Offered Every Semester.

THA 495 SPECIAL PROJECT

1-3, 0/0

Individual, student driven, project related to Theater Arts. Offered Every Semester.

THA 497 WORKSHOP

3, 0/0

Intensive discussion and activity on a particular subject or project in Theater Arts.

THA 499 INDEPENDENT STUDY

3-12, 0/0

Individual area of study, student works independently with faculty mentorship. Offered Every Semester.

Women and Gender Studies (WGS)

WGS 101 INTRODUCTION TO WOMEN AND GENDER STUDIES

3, 3/0; DI23

Gender as a social construction that influences women and men and intersects with other social categories. Introduction to feminist theories. How gender affects childhood experiences, education, employment, family, bodies, and violence. Portrayal of gender in art, literature, and media. Gender in the social and natural sciences. Current issues related to women and gender. Offered Every Semester.

WGS 189 TOPIC COURSE

1-3, 0/0

Current topics in women and gender studies. Offered occasionally.

WGS 201 INTRODUCTION TO LGBTQAI2+ STUDIES

3, 3/0; DI23

Interdisciplinary introduction to lesbian, bisexual, gay, transgender, queer, asexual, intersex, 2-spirited, + studies. Develop an understanding of social, cultural, and historical constructions of and intersections between these identities and communities. Explore these concepts through film, television, literature, history, ethnography, archival materials, law, medicine, education, religion, psychology and sociology. Offered every spring.

WGS 212 FEMINIST THEORY

3, 3/0

Background in feminist social theory and changes in feminism over time. Introduction to theoretical analysis from a feminist perspective. Offered Every Semester.

Equivalent Course: SOC 212

WGS 326 BLACK FEMINIST THOUGHT

3, 3/0

This course provides an introduction to Black feminist thought from the 19th century through the present. Topics include the origins and development of intersectional thinking, intersectionality in contemporary social thought, and critical race theory. The course draws from multiple academic disciplines, public intellectualism, and activist work. Offered occasionally.

Equivalent Courses: AAS 326, SOC 326

WGS 389 TOPIC COURSE

3, 0/0

Current advanced topics in women and gender studies. Offered occasionally.

WGS 488 INTERNSHIP

1-12, 3/0

Prerequisite: Approval of the faculty supervisor. Supervised field experience in a variety of settings to supplement classroom instruction. Offered Every Semester.

WGS 495 SPECIAL PROJECT

1-3, 0/0

Prerequisite: Faculty supervisor permission. Research conducted under the supervision of a faculty member. Offered Every Semester.

WGS 499 INDEPENDENT STUDY

3-12, 0/0

Prerequisite: Faculty adviser permission. Offered Every Semester.