GEOGRAPHY AND PLANNING (**GEOG**)

GEOG 100 Introduction to Geography (3 Units)

Analysis of world patterns of population characteristics, economic activities, settlement features, landforms, climate as interrelated factors. (Formerly 3350:100)

Ohio Transfer 36: Yes Gen Ed: Social Science

GEOG 250 World Regional Geography (3 Units)

Survey of world regions with focus on both physical and human landscapes; emphasis on world patterns and issues from a regional perspective. (Formerly 3350:250)

GEOG 275 Geography of Cultural Diversity (2 Units)

Prerequisites: 32 credit hours including English Composition I and II (ENGL 111, ENGL 112) or equivalent. Evaluation of cultural elements unique to various geographical regions to explain why different people utilize resources differently, and how cultural diversity affects regional conflicts. (Formerly 3350:275)

Gen Ed: Global Diversity

GEOG 305 Maps & Map Reading (3 Units)

Introduction to use and interpretation of maps. Study of basic map types, elements, symbolism, and historical and cultural context of maps. (Laboratory.) (Formerly 3350:305)

GEOG 310 Physical & Environmental Geography (3 Units)

Landforms, weather and climate, soils and vegetation and natural hazards. Nature and distribution of these environmental elements and their significance to society. Laboratory. (Formerly 3350:310)

GEOG 314 Climatology (3 Units)

Prerequisite: GROG 310 or permission. Analysis and classification of climates, with emphasis on regional distribution. Basic techniques in handling climate data. (Formerly 3350:314)

GEOG 320 Economic Geography (3 Units)

Geographical basis for production, exchange, consumption of goods. Effect of economic patterns on culture and politics. (Formerly 3350:320)

GEOG 350 Geography of the United States & Canada (3 Units)

Regional and topical study of United States and Canada, with emphasis on environmental, economic and cultural patterns and their interrelationships. (Formerly 3350:350)

Gen Ed: Domestic Diversity

GEOG 351 Ohio: Environment & Society (3 Units)

Regional and topical analysis of cultural, economic and environmental patterns; also in comparison with other states. (Formerly 3350:351)

GEOG 353 Latin America (3 Units)

Analysis of relationship of cultural and economic patterns to physical environment in Mexico, Central America, the Caribbean and South America. (Formerly 3350:353)

GEOG 356 Europe (3 Units)

Regional and topical analysis of cultural, economic and environmental patterns. (Formerly 3350:356)

GEOG 360 Asia (3 Units)

Environmental, cultural and economic geography of East, Southeast, South Asia and Middle East with emphasis on the contemporary. (Formerly 3350:360)

GEOG 363 Africa South of the Sahara (3 Units)

Environmental and human bases of regional contrasts. Emphasis on tropical environmental systems and changing patterns of resource utilization. (Formerly 3350:363)

GEOG 397 Special Problems in Geography and Planning (1-3 Units)

(May be repeated for a total of five credits) Prerequisite: Permission of instructor. Directed reading and research in special field of interest. (Formerly 3350:397)

GEOG 405 Geographic Information Systems (3 Units)

Prerequisites: GEOG 100, GEOL 101, CRJU 307, or permission of instructor. Introduction to the principles and concepts underlying geographic information systems (GIS) and their application in professional practice and academic research. Laboratory. (Formerly 3350:405)

GEOG 407 Advanced Geographic Information Systems (3 Units)

Prerequisite: GEOG 405. Advanced instruction in the theory and application of geographic information systems (GIS) including handson experience with both raster and vector GIS. Laboratory. (Formerly 3350:407)

GEOG 409 Archaeogeophysical Survey (3 Units)

Prerequisites: ANTH 110 or GEOL 101 or GEOG 310. Advanced instruction in subsurface geophysical survey techniques in archaeology. Emphasis on magnetic gradiometry and electrical resistivity techniques, image processing and geological and archaeological interpretation. (Formerly 3350:409)

GEOG 415 Environmental Planning (3 Units)

Scientific and technical principles for decision-making in planning, with emphasis on soils, land use, and water quality issues. Data sources and methods of site evaluation. (Formerly 3350:415)

GEOG 420 Urban Geography (3 Units)

Spatial structure of urban systems; interaction between cities; internal structure of cities. Perspectives on urban change; contemporary urban geographic problems; urban and regional planning issues. (Formerly 3350:420)

GEOG 422 Transportation Systems Planning (3 Units)

Study and analysis of transportation systems from a geographic perspective. Emphasis on transportation problems and issues, elements of transportation planning. (Formerly 3350:422)

GEOG 424 Military Geography (3 Units)

Influence of physical and human geography on military operations and military history. Role played by geography in international conflicts. (Formerly 3350:424)

GEOG 432 Land Use Planning Law (3 Units)

Acquaint student with past and present approaches to land use control in the United States and examine the political, economic, social and legal forces that have shaped existing land-use legislation. (Formerly 3350:432)

GEOG 433 Practical Approaches to Planning (3 Units)

Introduction to the history, theories and forms of urban planning. (Formerly 3350:433)

GEOG 437 Planning Analysis & Projection Methods (3 Units)

Introduction to the primary analytic techniques for small-area demographic and economic analysis and projection. (Formerly 3350:437)

GEOG 438 Land Use Planning Methods (3 Units)

Application of GIS and other computer-based tools to the preparation, implementation and evaluation of comprehensive land use plans. (Formerly 3350:438)

GEOG 439 History of Urban Design & Planning (3 Units)

Origins of human settlements and planning from the perspective of urban design and related societal trends. Comparison of world regional and historical urban forms. Experience in 'reading' settlements as visual landscapes. (Formerly 3350:439)

GEOG 440 Cartography (3 Units)

Use of graphic/cartographic principles and techniques as a means of presenting geographical information on maps and producing maps. Laboratory. (Formerly 3350:440)

GEOG 441 Global Positioning Systems (GPS) (1 Unit)

Fundamentals of Global Positioning System (GPS), with emphasis on geographic and planning activities. Includes hands-on exercises. (Formerly 3350:441)

GEOG 442 Cartographic Theory and Design (3 Units)

Prerequisite: GEOG 440 or permission of instructor. Principles and techniques of thematic mapping. Stresses maps as communications tools. Examines principle thematic mapping techniques and means of presenting qualitative and quantitative data. Laboratory. (Formerly 3350:442)

GEOG 443 Urban Applications in GIS (3 Units)

Prerequisite: GEOG 405 or permission of instructor. Applications of GIS in the urban context, including methods used for analysis of population density gradients, migration, and accessibility. (Formerly 3350:443) **Gen Ed:** Domestic Diversity

GEOG 444 Applications In Cartography & Geographic Information Systems (3 Units)

Prerequisite: GEOG 405 or permission of the instructor. Application of analytic and presentation techniques from cartography and geographic information systems to practical problems in geography and planning. Laboratory. (Formerly 3350:444)

GEOG 445 GIS Database Design (3 Units)

Prerequisite: GEOG 405. Introduction to theory and concepts of geographic data modeling, geodatabase design, and topology. Emphasis on current practices and methodologies in geography and planning.

GEOG 446 GIS Programming and Customization (3 Units)

Prerequisite: GEOG 405. Introduction to use of scripting languages for customizing the interface and extending the functionality of desktop GIS software.

GEOG 447 Remote Sensing (3 Units)

Prerequisite: GEOG 305. Concepts, systems, and methods of applying aerial photography, satellite imagery, and other remote-sensing data for analyzing geographic, geological, and other earth phenomena. (Formerly 3350:447)

GEOG 449 Advanced Remote Sensing (3 Units)

Prerequisite: GEOG 447. Current research in remote sensing. Applications in study of human cultural and biophysical environment. Practice in planning, design, execution and interpretation of remote sensing studies. (Laboratory.) (Formerly 3350:449)

GEOG 450 Development Planning (3 Units)

A study of planning concepts and techniques for developing countries, including growth and development, planning agencies, regional inequities and alternative approaches. (Formerly 3350:450)

GEOG 460 Political Geography (3 Units)

Principles and theory in contemporary domestic and international political geographies. Emphasis on the changing local and global patterns of electoral politics, security, and diplomacy. (Formerly 3350:460)

GEOG 481 Research Methods in Geography & Planning (3 Units)

Prerequisites: Completed a minimum of 12 credits in Geography and Planning. Investigation of library and archive resources. Emphasis on development of professional writing skills. (Formerly 3350:481)

GEOG 483 Spatial Analysis (3 Units)

Prerequisite: Completed a minimum of 12 credits in Geography and Planning. Analysis of mapped statistical surfaces. Principles for use of map as model for statistical evidence, prediction, hypothesis testing. (Formerly 3350:483)

GEOG 485 Internship in Geography & Planning (1-3 Units)

Prerequisite: Permission. (May be repeated for a total of six credits.) Supervised professional experience in planning agencies or related settings. Only three credits can be used toward a degree in Geography and Planning. (Formerly 3350:485)

GEOG 489 Special Topics in Geography (1-3 Units)

(May be repeated) Selected topics of interest in geography (Formerly 3350:489)

GEOG 490 Workshop in Geography (1-3 Units)

(May be repeated for a total of six credits) Group studies of special topics in geography. (Formerly 3350:490)

GEOG 495 Soil & Water Field Studies (3 Units)

Properties, origins and uses of major soil and water regime landscapes. Stresses relationships between soil and the hydrological cycle, urbanization, suburbanization and agriculture. Field trips required. (Formerly 3350:495)

GEOG 496 Field Research Methods (3 Units)

Prerequisite: Completed a minimum of 12 credits in Geography and Planning. Field work enabling student to become competent in collecting, organizing and analysis of data while carrying out field research projects. (Formerly 3350:496)

GEOG 497 Regional Field Studies (1-3 Units)

Off-campus intensive study of geographic features of a region or regions through direct observations and travel using appropriate field study methods. (repeatable up to 6 credits) (Formerly 3350:497)

GEOG 498 Honors Research in Geography (1-3 Units)

(May be repeated for a total of six credits) Prerequisite: permission of department honors preceptor, honors student only. Exploration of research topics and issues in contemporary geography. Selection of research topic and writing of research paper in proper scholarly form under direction of faculty member. (Formerly 3350:498)

GEOG 499 Career Assessment Seminar (2 Units)

Prerequisites: 24 credits in department or permission. Students demonstrate knowledge and skills acquired as geography majors through assessment testing and semester project, evaluate career options, and prepare resume and portfolio. (Formerly 3350:499)