



# Applied Public Policy

Public policies - such as criminal and civil laws, social service programs, tax codes, environmental laws, planning and land use regulations, among others - affect our lives daily. Such policies are generated by interaction between governments and individuals.

The Applied Public Policy minor offers students the opportunity to acquire a more sophisticated understanding of the public policy process and policy analysis along with a basic set of skills needed to communicate with and perhaps influence decision makers. It is intended to complement majors in related programs such as business, geography, political science, economics, urban and regional planning, environmental studies, and others. Students who complete the Applied Public Policy minor will have the tools needed to be more active leaders in their chosen professions.

## Programs

- Applied Public Policy *minor*

## Career Directions

- Business
- Criminal Justice
- Environmental Policy
- Health Care
- Land Use Planning
- Social Work
- Also: Graduate Study

## Preparation

### Recommended High School Courses

- English
- Social Studies
- Math
- Speech
- History
- Computers
- Languages

### Recommended Activities

- Reading Newspapers
- Attention to News Events

## Applied Public Policy *minor*

Required Credits: 32  
Required GPA: 2.00

### I REQUIRED CORE COURSES

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 3010 Public Economics (3 credits)
- ECON 3230 Benefit/Cost Analysis (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- POL 1200 Introduction to American Politics (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)

### II REQUIRED OPTION

SELECT 12 SEMESTER CREDITS FROM ONE OF THE FOLLOWING OPTIONS:

#### A. ENVR POLICY:

- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- ECON 3040 Environmental Economics (3 credits)  
or ENVR 3040 Environmental Economics (3 credits)

#### B. PLANNING:

- GEOG 2100 Introduction to Physical Geography (3 credits)

- GEOG 3570 Public Lands Planning (3 credits)
- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- GEOG 3580 Regional Development Planning (3 credits)

#### C. AM POL/ECON:

- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- ECON 3070 Labor Economics (3 credits)
- ECON 3200 Economics of the Financial Sector (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)

#### D. INT/POL/ECON:

- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- ECON 3400 International Trade and Finance (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)

#### E. PUBLIC POLICY SERVICE LEARNING

COMPLETE THE FOLLOWING COURSE. (1 credit per semester; must be taken twice, but no more than 4 credits total)

- POL 3910 Directed Independent Study: Student Leadership (1 credit)

COMPLETE THE FOLLOWING COURSE:

- POL 3970 Internship (3 credits)

## Economics Courses

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### **ECON 1500 Historical Development of the Mixed Economy (3 credits)**

Examines the origins and developments of the mixed economy, identifying its key institutions and their evolution. Differences in the historical experiences of different regions/nations are explored, as is the availability of alternative economic systems. Liberal Education Goal Area 8.

### **ECON 2000 Markets and Resource Allocation (3 credits)**

Develops microeconomic principles to explain and evaluate markets as mechanisms to signal buyers preferences and induce suppliers' response. Considers the origin and historical development of market economies as well as theory. Liberal Education Goal Areas 5 and 9.

### **ECON 2100 Macroeconomics and the Business Cycle (3 credits)**

Develops macroeconomic concepts to explore the determination of aggregate output, employment, and the price level in modern mixed economies. The interaction between the financial sector and commodity markets and the potential of monetary and fiscal policy to guide the course of the macro economy are also explored. Prerequisite: ECON 2000 or consent of instructor. Liberal Education Goal Area 5.

### **ECON 2150 Interdependence of the Hawaiian Economy and the Environment: Field Projects (1-3 credits)**

Economic concepts and techniques in environmental valuation, sustainable development, and green accounting based on the report "Environmental Valuation and the Hawaiian Economy." Interconnection of the Hawaiian economy and environment through investigation of major environmental issues such as the role of forests, water quality and quantity, coral reef ecosystems, extractive activities versus eco-tourism, and invasive species. Direct observation of investment efforts toward achieving sustainability.

### **ECON 2925 People of the Environment: Economic Perspective (3 credits)**

This course is a module linked to the interdisciplinary environmental issues course, People and the Environment. It is an integrative study of the natural, social, value-based, and citizen-action contexts for environmental awareness. The disciplinary component surveys economic approaches to and institutional settings for environmental decision making, including our behaviors as consumers and producers. Interdisciplinary perspectives are evaluated in light of different concepts of social well being, including economic efficiency, equity, and sustainability. Liberal Education Goal Area 10.

### **ECON 3010 Public Economics (3 credits)**

Examines the rationale of public provision of selected goods and services and compares alternative tax structures in terms of their effects on the rest of the economy and their capacity for financing government expenditures. The effects of the political process on taxes and spending and selected topics in intergovernmental fiscal relations are also considered. Prerequisites: ECON 2000 and ECON 2100.

### **ECON 3040 Environmental Economics (3 credits)**

Examines environmental problems as consequence of market's failure to accurately value environmental resources. Alternative private and public policies are examined in terms of their effectiveness in improving the efficiency and equity with which water, air and other resources are allocated. Prerequisite: ECON 2000 or consent of instructor. Also offered under ENVR 3040.

### **ECON 3070 Labor Economics (3 credits)**

Analyzes structure and operation of labor markets as a background to exploring issues and topics related to collective bargaining and public policy. The impact of technological and institutional change on labor markets is considered. Prerequisite: ECON 2000 or consent of instructor.

### **ECON 3200 Economics of the Financial Sector (3 credits)**

Looks at the operation of intermediaries and securities markets to allocate financial capital and price financial assets. The role of the central bank and related agencies in guiding the financial sector and influencing the macroeconomy are considered. Prerequisites: ECON 2000 and ECON 2100 or consent of instructor.

### **ECON 3230 Benefit/Cost Analysis (3 credits)**

Develops the theoretical base of benefit/cost analysis in reviewing public investment projects and examines the application of this tool by specific agencies. Emphasis on the meaning and treatment of risk in policy analysis. Prerequisite: ECON 2000 or consent of instructor.

### **ECON 3400 International Trade and Finance (3 credits)**

The origins and effects of trade and capital flows. The role of international financial markets in influencing trade flows and international investment. Prerequisite: ECON 2000.

### **ECON 3700 Current Economic Topics (1-3 credits)**

Customized course providing in-depth investigation of a current issue of theory or policy. Content and credits may vary. Prerequisites: ECON 2000 and ECON 2100.

### **ECON 4000 Microeconomic Decisions (3 credits)**

Individual decision making of households and firms. Resource allocation via market exchange in alternative market structures. Prerequisites: ECON 2000 or consent of instructor.

### **ECON 4100 Macroeconomic Growth and Fluctuations (3 credits)**

Examines the sources of economic growth and cyclical fluctuations in a market economy, techniques for forecasting economic activity, and the potential for policy to improve performance. Prerequisites: ECON 2000 and ECON 2100 or consent of instructor.

### **ECON 4880 Economics Capstone (3 credits)**

Investigates advanced topics in micro and macro alternating years. Students are responsible for considerable out-of-class research and in-class presentations. Note: An appropriate internship may substitute for ECON 4880 in the major with department's permission. Prerequisites: ECON 4000 and ECON 4100, or consent of instructor.

### **ECON 4917 DIS Tchg Assoc | (1-2 credits)**

Directed Independent Study | Teaching Associate

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY  
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY  
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE  
1940, 2940, 3940, 4940 IN-SERVICE COURSE  
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR  
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION  
1970, 2970, 3970, 4970 INTERNSHIP  
1980, 2980, 3980, 4980 RESEARCH  
1990, 2990, 3990, 4990 THESIS

## Environmental Studies Courses

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### **ENVR 2000 Introduction to Environmental Science (3 credits)**

An introduction to environmental science emphasizing biological, physical-chemical and cross-cultural environmental social principles underlying major world environmental, political and economic issues; examination of the impacts of human activities and technology on global environmental and socio-economic stability; application of critical thinking and working with graphic skills and lab-like data analysis related to global environmental, biological, physical-chemical, cultural, and socio-economic topics. Liberal Education Goal Areas 3 & 10.

**ENVR 2150 Wilderness Ethics: Projects for Environmental Field Programs (1-3 credits)**

Major schools of thought on the meaning of wilderness, its importance to modern society, and implications for responsible citizenship. Notions of wilderness and wilderness ethics advanced by major authors, past and present. Wilderness policy in the United States and recommendations for revisions to the Wilderness Act. Relation of sustainability to wilderness protection and the benefits provided to society. Experiential learning by visiting key areas that meet certain criteria for wilderness and relation of these experiences to personal values, including ethical behavior in "wilderness" settings. Liberal Education Goal Area 9.

**ENVR 2925 People of the Environment: Global Pollution Perspective (3 credits)**

This course is a section of the interdisciplinary environmental issues course, People of the Environment. The focus of this course is to explore the scientific aspects of global pollution, including causes, effects, and solutions. Liberal Education Goal Area 10.

**ENVR 3040 Environmental Economics (3 credits)**

Examines environmental problems as consequence of market's failure to accurately value environmental resources. Alternative private and public policies are examined in terms of their effectiveness in improving the efficiency and equity with which water, air, and other resources are allocated. Prerequisite: ECON 2000 or consent of instructor. Also offered under ECON 3040.

**ENVR 3300 Environmental Management and Safety (3 credits)**

Helps students pursuing environmental studies to develop environmental management skills required in both manufacturing and non-manufacturing businesses. Safe handling, transport, and storage of hazardous materials with respect to their physical and chemical nature, and application of regulatory requirements relevant to specific business and hazardous materials involved. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor. May not be offered every year.

**ENVR 3600 Environmental Justice and Sustainability (3 credits)**

The ethical and moral dimensions of environmental choices. The legal, philosophical, political, and economic underpinnings of various theories of justice. A major focus is the inequitable distribution of environmental risks and the implications of policies that attempt to combat these risks. Prerequisite: ENVR 2000 or consent of instructor.

**ENVR 3700 Natural Resource Management (3 credits)**

This class offers an interdisciplinary introduction to the principles of natural resource management highlighting the biological and physical science aspects of natural resource management at local, national, and global scales. Topics covered may include resource management of soil, water, forests, rangelands, wetlands, waterways, and wildlife. This is an intermediate-level course designed to introduce key concepts and topical areas in natural resource management. A specific focus for the course will be the application of adaptive natural resource management to key Minnesota resources at multiple levels of government (local, county, state, federal, and tribal) over time. Prerequisite(s): ENVR 2000 or consent of instructor.

**ENVR 3710 Indigenous Environmental Knowledge: Global Perspective (3 credits)**

Indigenous cultures refer to pre-colonial societies who today represent a minority, non-dominant group in the societies presently residing in territories these cultures once developed. Throughout their history, Indigenous people have developed their own body of environmental knowledge that they have passed on, generation to generation. This course will provide students with a global perspective of Indigenous environmental knowledge and how this knowledge has affected the relationship of the Indigenous peoples with the natural world and its resources. Students will also investigate present-day political, economic, social, and technological issues related to incorporating Indigenous environmental knowledge into sustainability efforts. Liberal Education Goal Areas 7 & 8. (Also offered under INST 3710)

**ENVR 3720 Food Sovereignty, Health & Indigenous Environments (3 credits)**

This course is designed to help students understand the interconnections of food sovereignty, health and environmental sustainability. Students will explore why it is not only important for people to control the way their food is produced, distributed, and consumed but why the food should be appropriate to the cultural background of the people consuming it. Students will learn the critical connections between food and health with an exploration of those influences within the context of Indigenous worldviews and ways of knowing. This is an experiential learning course -- learning through interaction, projects, and reflection. This course may be suitable as an elective in Indigenous Studies and Environmental Studies, Health and Nursing degree programs. Liberal Education Goal Areas 7 & 8. (Also offered under INST 3720)

**ENVR 3730 Sustainable Communities: Local Indigenous Perspective (3 credits)**

Human societies all across the globe have developed rich sets of experiences and explanations relating to the sustainable communities they live, work and play in. This course is designed to introduce students to the basic concepts of these sustainable communities. Students will learn how these communities function, their challenges, and the critical networks that exist with the environment. This class will explore the role of Indigenous knowledge and traditional ways of learning, as well as scientific knowledge in maintaining the sustainability of a community. This is an experiential learning course -- learning through interaction, projects, and reflection. Liberal Education Goal Areas 5 & 7. (Also offered under INST 3730)

**ENVR 3740 Environment, Wellness & the Sacred Connection to Place (3 credits)**

In Indigenous communities, there is a deep and lasting connection to place. Today, there exists overwhelming evidence that connection to place offers important elements for overall individual wellness. However, many communities face challenges in their environments that are detrimental to their health and well-being. To support these communities, there is a need to reconnect them with ways to restore the sustainability of their environment and connection to place. In this course, students will learn the critical connections between the environment and health and will explore the influences of connection to place within the context of Indigenous worldviews and ways of knowing. This is an experiential learning course -- learning through interaction, projects, and reflection. Liberal Education Goal Areas 5 & 7. (Also offered under INST 3740)

**ENVR 3750 Sustainable Communities: Global Indigenous Perspective (3 credits)**

Throughout their history, Indigenous people have developed their own body of knowledge on global sustainability that they have passed on, generation to generation. This course will provide students with a large picture perspective of global Indigenous sustainability knowledge and viewpoints and how this perspective continues to affect the relationship of the Indigenous peoples with the natural world and its resources. Students will also investigate present-day global political, economic, social, and technological issues related to incorporating Indigenous views into sustainability efforts across the continents. Liberal Education Goal Areas 7 & 8. (Also offered under INST 3750)

**ENVR 3800 Environmental Data Analysis (3 credits)**

The aim of this course is to expose students to both introductory and advanced analytical methods for environmental applications. The class will provide a primer on introductory inferential statistics (sampling, probability, central tendencies, spread, t- tests and ANOVA) and work towards more advanced analytical applications which are geared towards research questions in Environmental Studies, Geology, and Geography. These techniques include multiple regression, logistic regression, multi-dimensional scaling, regression trees, cluster analysis, survival analysis and basic time series analysis. This class will focus on learning both the theoretical background and application of these methods and discuss the ethical and contextual issues that surround the use of statistical analysis in environmental research.

**ENVR 3840 Wetlands Ecology (3 credits)**

Survey course develops a basic understanding of the terminology, classification, ecology, values, and conservation of wetlands. Covers wetland systems from around the world, with emphasis on wetlands in North America. Prerequisites: BIOL 1400 and BIOL 1500, or consent of instructor.

**ENVR 3880 Environmental Controversies (2 credits)**

Faculty and student presentations followed by group discussion of classic and current problems, and governmental policies/regulations. Prerequisite: ENVR 2000 or consent of instructor.

**ENVR 4050 Geochemistry (3 credits)**

Study of processes in the lithosphere, hydrosphere, and atmosphere; cycling of the elements; weathering; microbe-mineral interactions; nanoparticles; microscopic imaging. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4110 Environmental Chemistry (3 credits)**

Intensive study of biogeochemical cycles of natural and man-made pollutants including transformations, transport, fate and persistence mechanisms. Environmental effects, long-term impacts, and methods of treatment/prevention are discussed. Prerequisites: CHEM 1112 or CHEM 2212 or consent of instructor.

**ENVR 4200 Wastewater Treatment (3 credits)**

Introduction to the operation of the principal methods and treatment processes of municipal and industrial wastewaters, and for the disposal of treated effluent and sludges, and other solid materials. Integration of fundamental principles of science with different aspects of sanitary technology. Prerequisites: BIOL 1500, CHEM 1112 or CHEM 2212, MATH 1170, or consent of instructor. BIOL 1500 is not required for Chemistry majors.

**ENVR 4210 Environmental Law and Policy (3 credits)**

Overview of environmental laws, regulations, and policies. Prerequisite: Consent of instructor.

**ENVR 4220 Sampling and Analysis (4 credits)**

Methods of sampling and analysis of air, water, soil and other environmental compartments will be described in lecture and experienced in laboratory session. The focus is on regulations and prescribed protocols for environmental field and lab work. Lecture and laboratory. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4230 Air Pollution Technology (4 credits)**

In depth overview of sources and types of air pollution, major environmental impacts, regulations, and technologies for control and clean up. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4240 Waste Management (4 credits)**

An overview of the solid and hazardous waste situation at the local, state, national and international levels. The focus on management will include a systems approach to prevention, and remediation of wastes. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4260 Risk Assessment and Auditing (3 credits)**

Overview of human/environmental risk assessment methods and environmental auditing techniques, with a focus on regulatory compliance and case studies. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4400 Environmental Microbiology (3 credits)**

Fundamental aspects of microbiology as related to land production, environmental pollution and water quality control processes. The role of major groups of microbes as pollutants, as purifying agents, and as agents of biochemical changes, and ecological functions and importance of each group in the environment. Prerequisites: BIOL 1110 or BIOL 1120 or CHEM 1112 or CHEM 2212 or consent of instructor.

**ENVR 4500 Environmental Toxicology (4 credits)**

An overview of major environmental pollutants, their transport, fate and toxicology. Pollutant effects studied from practical and theoretical focus on stress at various levels of biological organization. Prerequisites: BIOL 1500, BIOL 2610, and CHEM 1112 or CHEM 2212, or consent of instructor.

**ENVR 4610 Sustainability: Theory and Practice (4 credits)**

Becoming agents of positive change in our communities requires building many different skill sets. This course will build core competencies of community leadership and focus on sustainability issues in our community. We will integrate theories, principles and practices of sustainability throughout the course and explore how various entities such as the University, the City of Bemidji, local tribes, companies, non-profits and individuals approach sustainability actions and choices. We will explore issues such as energy, water, waste, food and transportation as well as diversity, equity and inclusion in decision making. Students will be asked to identify a specific problem facing our community and utilize Problem and Project Based Learning (PBL) techniques to directly engage with these local issues, connect with the stakeholders involved and work together to propose potential solutions. Prerequisite(s): ENVR 2000 or consent of instructor.

**ENVR 4880 Senior Seminar I (1 credit)**

Senior level seminar in which students explore the environmental job market and graduate school opportunities. Prerequisites: Senior status and ENVR 3880.

**ENVR 4917 DIS Tchg Assoc | (1-2 credits)**

Directed Independent Study | Teaching Associate

**ENVR 4970 Internship (3 credits)**

Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**ENVR 4990 Thesis (3 credits)**

A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

**All-University Courses**

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

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 1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION  
 1970, 2970, 3970, 4970 INTERNSHIP  
 1980, 2980, 3980, 4980 RESEARCH  
 1990, 2990, 3990, 4990 THESIS

**Geography Courses****GEOG 1224 Introduction to Map Use (3 credits)**

This course is designed for the liberal education program and provides an introduction to common characteristics and use of map media. Topographic maps will be used for physical analysis as well as to discern cultural and economic features of landscapes. Thematic maps, their use and applications will be presented. Includes some study out-of-doors with map and compass. Liberal Education Goal Areas 5 & 11.

**GEOG 1400 World Regional Geography (3 credits)**

A survey of physical, cultural, and economic aspects of world regions. An introduction to how constituent parts of the world differ from one another in their associated resources, cultures and economics. Attention is given to the interrelationships, interdependencies, and associations that bind together the diverse communities of the world. Liberal Education Goal Areas 7 & 8.

**GEOG 2100 Introduction to Physical Geography (3 credits)**

This course is designed for the liberal education program and provides an introduction to spatial patterns derived from earth system processes. The course provides a systematic survey of land forms, weather and climate, soils and vegetation. This course utilizes a combination of in class discussion and laboratory-like exercises to investigate these topics. Liberal Education Goal Area 3.

**GEOG 2200 Introduction to Human Geography (3 credits)**

Emphasizes the study of geographical relationships and interactions of cultural, social, economic, ethnic, and political phenomena. Topical approach to population subgroups, religions, languages, urban and rural settlements, and other attributes of the cultural landscape. Liberal Education Goal Areas 7 & 8.

**GEOG 2400 Introduction to Planning (3 credits)**

This course is designed for the liberal education program and provides information on the background and fundamentals of the community planning process. Includes discussion of contemporary issues in physical, environmental and social planning. Emphasis is on the local and subregional levels. Liberal Education Goal Areas 5 & 9.

**GEOG 2925 People of the Environment: Geography Perspective (3 credits)**

An integrative study of the natural, social, value-based, and citizen-action contexts for environmental awareness. The disciplinary component surveys geographic approaches to and institutional settings for environmental problems and decision making, including our spatial behaviors as either sources or recipients of environmental impacts. Interdisciplinary perspectives are evaluated in light of different geographic concepts of spatial distributions, physical geography, and regional planning. Liberal Education Goal Area 10.

**GEOG 3125 Weather and Climate (3 credits)**

Weather is the study of the atmosphere over short time scales, while climate is the study of long-term weather trends. The study of weather is commonly termed meteorology, which is actually a branch of physics associated with fluid dynamics. Climate is associated with statistical procedures and analyses. This course examines the geographic patterns and processes of global climate and weather, as well as topics such as global climate change, global climate models, and extreme weather events. Students learn about the Earth's atmosphere; energy budgets and astronomical controls on weather processes; oceanic and atmospheric circulation; the basic atmospheric parameters; atmospheric hazards such as tornadoes, hurricanes, hail, and lightning; and global climate change issues. Prerequisite: GEOG 2100 or consent of instructor.

**GEOG 3226 Cartography (3 credits)**

This course provides a more integrated, practical link between cartographic theory and practice for users of GIS. This course blends theoretical discussion of GIS as a science and GIS as a software application and addresses through lecture and laboratory work map productions for a variety of audiences. A particular focus of this course is on quality communication through maps. Experience with GIS software is essential. Prerequisite: GEOG 3231.

**GEOG 3231 Introduction to Geographic Information Systems (3 credits)**

This course develops a proficiency in basic GIS skills for those new to GIS. The premise of the course revolves around analytical problem solving using spatial data and techniques. The course also focuses on graphic communication of quantitative data including cartographic mapping concepts and data classification. This course concentrates on learning to navigate the current version of ArcGIS software at a beginner's level and developing and creating maps as communication tools. Liberal Education Goal Area 4.

**GEOG 3232 Intermediate Geographic Information Systems (3 credits)**

An intermediate course on the theories and application of GIS for spatial data management and analysis, thematic mapping, environmental modeling. This course expands on the concepts and methods presented in Introduction to GIS and guides students through a more comprehensive overview of principles and techniques used in GIS. Course objectives include (1) enhance and build knowledge of GIS as a system and science, (2) improve skills at GIS analysis, and (3) develop and improve problem solving skills. Prerequisite: GEOG 3231 or consent of instructor.

**GEOG 3255 Introduction to Remote Sensing (3 credits)**

Analysis of a special class of pictures that provide an overhead perspective. These images have unique properties that provide a distinct advantage to assessing spatial changes and patterns of change on the Earth's surface. Students develop an understanding and the skills necessary for interpreting air photos, satellite, and remotely sensed images. Prerequisite: GEOG 3231 or consent of instructor.

**GEOG 3400 Economic Geography (3 credits)**

This course helps students understand the world's increasingly complex economic interdependence by examining issues confronting the Global Economy today. This course looks at countries' economic and social well-being, their relationships to other countries and internal and global economic patterns of productivity, wealth and development. Liberal Education Goal Area 5.

**GEOG 3410 Geography of North America (3 credits)**

A regional analysis of the physical, demographic, economic and cultural characteristics of the nations in North America. Liberal Education Goal Areas 5 & 7.

**GEOG 3531 Political Geography (3 credits)**

This course utilizes "World Systems Theory" to investigate 1) theories of State formation and organization; 2) historical processes of imperialism, colonialism, and decolonization; 3) major issues of the emerging political economy; 4) historical and contemporary geopolitics; and 5) the political geography of everyday life.

**GEOG 3532 Political Ecology (3 credits)**

Political ecology utilizes a necessary geographical perspective to understand and analyze the biophysical processes that shape issues otherwise inadequately conceptualized as political, economic or social. This spatial understanding developed by political geographers reveals relationships of the ecological and the political that are simultaneously mutually reinforcing and, often, mutually antagonistic. Prerequisite: GEOG 3531 or consent of instructor.

**GEOG 3550 Site and Resource Analysis in Planning (3 credits)**

This course emphasizes techniques and methods in the location, analysis, evaluation, and design of sites, focusing on identifying use potentials and impact limitations for planning and management. Prerequisite: GEOG 2400 or consent of instructor.

**GEOG 3560 Metropolitan Land Use Planning (3 credits)**

An examination of the identification and inventory methods of land use analysis including the designing of land use models which are compatible with environmental, social, and economic goals. Prerequisites: GEOG 2100, GEOG 2400, or consent of instructor. Prior completion of or concurrent enrollment in either GEOG 3550 or GEOG 3570 is recommended.

**GEOG 3570 Public Lands Planning (3 credits)**

Comparison and evaluation of natural resource management policies and analytical techniques of the U.S. Forest Service, Bureau of Land Management, National Park Service and U.S. Fish and Wildlife Service. Attention is paid to the historical and contemporary land management approaches used to protect, exploit, manage, and/or use public lands in the United States. Especially relevant are jurisdictional issues over public land, federal agencies involved in land management, state and local issues and land management, and contemporary issues associated with land management in the 21st Century. Prerequisites: GEOG 2400 and GEOG 3550, or consent of instructor.

**GEOG 3580 Regional Development Planning (3 credits)**

An examination of methods and processes emphasizing contemporary relationships between planners and governments, the private sector, and nongovernmental organizations regarding relationships between regions nationally and internationally, with special attention to environmental sustainability. Prerequisite(s): GEOG 2400 or consent of instructor.

**GEOG 3630 Conservation Biology (3 credits)**

Principles and theories of conservation biology. Topics include biodiversity, threats to biodiversity, extinctions, management of threatened and endangered species, managing habitats for conservation, and methods to mitigate biodiversity loss. Prerequisites: BIOL 1400 and BIOL 1500, or consent of instructor. Also GEOG 3630.

**GEOG 3800 Regional Geography (1-3 credits)**

A regional and topical analysis of the cultural and physical features of a continent or major region of the earth. May be repeated provided different regions are involved. Note: Recommended for students in international studies, foreign languages, and for prospective teachers in the humanities or social studies.

**GEOG 3810 Geography of Europe (3 credits)**

A regional analysis of the cultural, economic, physical and landscape patterns of the European cultural region. NOTE: Recommended for students in Euro-Spring, International Studies, foreign languages, and prospective teachers. Liberal Education Goal Areas 5 & 8.

**GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)**

This course is designed to provide a more in depth look at Asian sub regions of South, East and Southeast Asia. Geographically, we will examine and analyze activities in this part of the world through cultural, demographic, political, economic, urban and geopolitical lenses. Liberal Education Goal Area 8. Might not be offered every year. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3840 Geography of Africa (3 credits)**

Despite persistent bias about it, Africa's cultural complexity, social dynamism, and political/economic struggle have tremendous relevance for the study of global trends at the start of the twenty-first century. The central purpose of this course is to demonstrate that relevance by investigating the cultural, historical, economic, and political dimensions of change in Africa.

**GEOG 3850 Geography of the Middle East (3 credits)**

This course is designed to provide a more in depth look at the region we routinely describe as the Middle East. Geographically, we will examine activities in SW Asia and the nations of North Africa. We may extend our discussion to the countries of Afghanistan, the Sudan, South Sudan and Turkey to provide a more comprehensive analysis of a particular topic or subtopic. This is a highly complex region and may be looked at from numerous perspectives. Our objective thus is to examine the region through economic, cultural, environmental, urban and geopolitical lenses. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3860 Geography of Latin America and the Caribbean (3 credits)**

This course is designed to provide a more in depth look at the region of Latin America and the Caribbean. We recognize at the outset that this is a broad subject and may be looked at from numerous perspectives. Our objective thus is to examine this geographic region through economic, cultural, environmental, urban and political lenses. The text book provides the basis for our study which is further complemented by each students (1) research into an issue or event that had a far reaching impact on this region or within its sub-regions, (2) reading of works of fiction set in Latin America and (3) viewing feature films with Latin American themes. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3870 Planning for Sustainable Cities (3 credits)**

Using a World Regional Geography approach, this course examines the dynamics of urban development across the globe, with particular reference to sustainable urban design and urban biodiversity. Political, cultural, environmental and economic influences on the city are examined in both the developed and the developing world. Liberal Education Goal Area 5.

**GEOG 4130 Biogeography (3 credits)**

This course examines the distribution and diversity of flora and fauna across multiple scales. It will focus on the factors that shape and influence these patterns and investigate the role of disturbance in this process. It will also incorporate both field and lab experiences to further examine the key concepts of biogeography. Prerequisites: GEOG 2100 and GEOG 3231.

**GEOG 4140 Landscape Ecology (3 credits)**

This course examines the connection of pattern and process at the scale of the landscape. Students will utilize several analytical methods to examine and explain how humans, disturbance and natural process work in concert to create landscape-level dynamics and change. The course will also cover how landscape ecology is applied to assist in conservation efforts. Prerequisites: GEOG 2100 and GEOG 3231.

**GEOG 4190 Qualitative Methods in Geographic Research (3 credits)**

As a geographic perspective becomes increasingly important in analysis of critical issues at multiple scales from the local to the global, this course demonstrates how research grounded in qualitative methodologies encourages innovative approaches and yields significant insights. Prerequisite: GEOG 2200. While not required, it is highly recommended that GEOG 4210 and GEOG 4265 be taken previously or concurrently.

**GEOG 4210 The History and Development of Geographic Thought (3 credits)**

Development of the discipline of Geography with emphasis on both the historical and recent developments in the field. Includes a critical analysis of writing of representative geographers.

**GEOG 4265 Spatial Analysis (3 credits)**

An examination in the concepts and application of advance spatial statistical methodologies. These include, kriging, spatial autocorrelation, spatial regression models, and cluster analysis. Prerequisites: STAT 2610 or PSY 3401 or BUAD 2231 and GEOG 3231.

**GEOG 4275 Advanced Geographic Information Systems (3 credits)**

This course will give students hands on experience working with advanced geodatabases, the basic automation and scripting of geospatial processes, web mapping, and server side application in GIS. Prerequisites: GEOG 3231 and GEOG 3232.

**GEOG 4910 Directed Independent Study (3 credits)**

Arranged individual study.

**GEOG 4917 DIS Tchg Assoc | (1-2 credits)**

Directed Independent Study | Teaching Associate

**GEOG 4970 Internship (3 credits)**

Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**GEOG 4990 Thesis (3 credits)**

Working individually with a thesis advisor, the student produces a Geography thesis. The thesis must be a scholarly piece of work, based on empirical or archival research of a geographical issue (physical, demographic, economic, cultural, and/or political) of present or future relevance. The end product is a documented essay of at least minimally required length and format that must be approved by the advisor and at least one other member of the Geography Department after a brief oral defense.

**All-University Courses**

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1940, 2940, 3940, 4940 IN-SERVICE COURSE  
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR  
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION  
1970, 2970, 3970, 4970 INTERNSHIP  
1980, 2980, 3980, 4980 RESEARCH  
1990, 2990, 3990, 4990 THESIS

## Political Science Courses

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### **POL 1100 Understanding Politics (3 credits)**

An introduction to the basic ideologies, concepts, processes and institutions of modern government and politics. Liberal Education Goal Areas 6 & 9.

### **POL 1200 Introduction to American Politics (3 credits)**

An introductory survey to the institutions and actors, such as the media, interest groups, political parties, congress, and presidency of contemporary American government and politics. Liberal Education Goal Area 5 & 7.

### **POL 1300 Introduction to International Relations (3 credits)**

Surveys various theories explaining the behavior of nation-states, the causes of war and peace as well as the role of multinational corporations and international organizations in international politics. Liberal Education Goal Areas 8 & 9.

### **POL 1400 Introduction to Comparative Politics (3 credits)**

A comparative analysis of political systems and their functions in the context of unique cultures and histories. Liberal Education Goal Area 8.

### **POL 2925 People of the Environment: Political Science Perspective (3 credits)**

An introduction to political processes and institutions involved in making environmental policy. Might not be offered every year. Liberal Education Goal Area 10.

### **POL 2953 Study-Travel, History and the Social and Behavioral Sciences (1-6 credits)**

Study Travel course in Political Science for Lib Ed Goal Area 5.

### **POL 3100 American Foreign Policy (3 credits)**

Traces the development of American foreign policy: its objectives, limitations, domestic and international factors influencing foreign policy. Prerequisite: POL 1300. (Might not be offered every year.)

### **POL 3130 Asian Political Development (3 credits)**

Course investigates the unique political and economic challenges facing the countries of Asia and South Asia. Prerequisite: POL 1400. (Might not be offered every year.)

### **POL 3140 Canadian Politics (3 credits)**

Explanation of Canada's history, political and economic systems, and regional variations within the nation-state. Special attention to political parties, ideologies, policy processes, and outcomes. (Might not be offered every year.)

### **POL 3150 Topics in Political Science (1-3 credits)**

Course explores underlying political dimensions of topical issues. (Might not be offered every year.)

### **POL 3160 Comparative European Politics (3 credits)**

Course includes an analysis of political structures and processes in Europe. The mechanisms of parliamentary governments, political parties, interest groups and ideologies are included. Prerequisite: POL 1400. (Might not be offered every year.)

### **POL 3170 International Relations (3 credits)**

The study of conflict and cooperation in international relations, the foreign policies of the great powers, international organizations, and the United Nations. Prerequisite: POL 1300. (Might not be offered every year.)

### **POL 3180 International Law and Organization (3 credits)**

Explores the role of international organizations such as the United Nations, economic alliances, international law, and regional consolidation in international politics. Prerequisite: POL 1300. (Might not be offered every year.)

### **POL 3190 International Political Economy (3 credits)**

Analyzes how economic policy decisions are made within and between countries and the effect those decisions have on affected interests in domestic and international politics. Prerequisite: POL 1300. (Might not be offered every year.)

### **POL 3200 Minnesota Politics (3 credits)**

Using Minnesota politics as a central focus, the role of and function of state and local governments in the context of American federalism is examined. (Might not be offered every year.) Liberal Education Goal Areas 5 & 9.

### **POL 3210 Public Administration (3 credits)**

An introduction to the field of public administration. Emphasis is on the political dimensions of management in the public sector. Prerequisite: POL 1200. (Might not be offered every year.)

### **POL 3230 Environmental Politics (3 credits)**

Surveys the dynamics of the policy process that produce our environmental policies. An analysis of actors, institutions, and organizations that shape U.S. environmental law and policy. Prerequisite: POL 1200 or consent of instructor. (Might not be offered every year.)

### **POL 3240 Political Analysis (3 credits)**

Examines the application of political science research methodology to current questions of politics and public policy. Prerequisite: Completion of Liberal Education mathematics requirement (Goal Area 4) or consent of instructor.

### **POL 3310 Intersection of Public and Non-Profit Sectors (3 credits)**

Studies federal, state and local agency policy domains and interactions; government agency grant making policies and procedures, ideological and partisan views of the public and non-profit sectors. Prerequisite(s): none.

### **POL 3320 Non-Profit Management (3 credits)**

This course deepens students' understanding of the role of management and leadership in today's nonprofit sector. Topics covered include: the responsibilities and challenges facing today's non-profit managers, the role of the board of directors, planning, funding and staffing programs, financial accountability, and ethical decision making. Prerequisite(s): none.

### **POL 3330 Non-Profit Financial Management (3 credits)**

This course examines the critical financial considerations of nonprofit organization, including sources of funds and fundraising, grant writing and management and financial accountability. The students will consider the key financial measures and strategies required to ensure the effectiveness and sustainability of the organization. The course will also consider nonprofit financial statements as indicators of financial health and sound management. Prerequisite(s): none.

### **POL 3400 Political Theory (3 credits)**

This course surveys the development of western political thought. Included is an examination of some of the ideas and values associated with major social and political movements in Europe and the United States. Topics will vary and may include liberalism, conservatism, populism, democracy, communism, nationalism, fascism, environmentalism, realism, and feminism. POL 1100 or consent of instructor. (Might not be offered every year.)

### **POL 3410 Legislative and Executive Relations (3 credits)**

Explores the legislative process by analyzing the motives and evolving legislative styles of legislators in relation to the evolution and powers of the modern presidency and executive establishment. Prerequisite: POL 1200. (Might not be offered every year.)

### **POL 3420 Campaigns and Elections (3 credits)**

Includes analysis of the congressional and presidential electoral process, including the role of political parties, interest groups, and the media. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3910 Directed Independent Study: Student Leadership (1 credit)**

Directed Independent Study

**POL 3970 Internship (3 credits)**

Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**POL 4100 Political Inquiry (3 credits)**

Students will learn the theory and practice of quantitative political analysis through the completion of original research projects. Prerequisites: POL 3240.

**POL 4200 Constitutional Law (3 credits)**

An examination of legal interpretations of the constitution regarding the separation of powers and the Bill of Rights. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 4500 Thesis and Career Preparation (3 credits)**

This is a senior year capstone course. In a seminar format, students discuss progress on their individual research projects and develop career plans and skills. Prerequisite: POL 4100 or consent of instructor.

**POL 4917 DIS Tchg Assoc | (1-2 credits)**

Directed Independent Study | Teaching Associate

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**Sociology Courses****SOC 1104 Society and Social Issues (3 credits)**

Examines concepts and theories that describe and explain social life. Focuses on aspects of culture, social class, race relations, and gender relations as they are determined by society, and on how humans create and recreate groups, structures, and institutions. Liberal Education Goal Area 5.

**SOC 2200 Social Movements and Change (3 credits)**

A social history of social movements and change. Focuses on understanding and analyzing these dynamics as generational changes and as the emergence of broader social forces driving the major movements of the past fifty years. The shift from modernity to postmodernity sets the overall theoretical framework, with an emphasis on the dynamics of race, class, gender, environment, and culture. Liberal Education Goal Area 8.

**SOC 2230 Race and Ethnic Relations (3 credits)**

Study of dominant-subordinate relations with emphasis on racial and ethnic inequalities. Examination of privilege, prejudice and discrimination. Liberal Education Goal Areas 7 & 9.

**SOC 2240 Men, Women, and Society: A Sociological Interpretation (3 credits)**

Study of the construction of gender in society and the differential consequences of particular social arrangements on the lives of men and women. Examines gender, male and female sexuality, intimate relationships, gendered patterns of work and education, the gender of violence, and sociological theories of femininity and masculinity. Emphasizes changes in gendered social patterns in U.S. society in the 21st century and compares those changes to shifting patterns in other societies. Liberal Education Goal Areas 5 & 7.

**SOC 3001 Social Statistics (3 credits)**

Covers a conceptual understanding of basic descriptive and inferential statistics. Choice of statistic and interpretation of SPSS results is discussed. Prerequisite: Completion of Liberal Education mathematics requirement (Goal Area 4) or consent of instructor.

**SOC 3003 Research Methods (3 credits)**

Examines the basic methods used to study diverse social processes and to improve our understanding of social issues. Topics include the relationship of theory to research, research ethics, evaluation of qualitative and quantitative research designs and patterns of analysis, and associated concerns. Prerequisite: SOC 1104.

**SOC 3010 Social Explorations: Classic and Contemporary Sociological Theory (3 credits)**

In this class we will explore classic and contemporary sociological theories. We will begin by examining Karl Marx, Emile Durkheim, Max Weber, Georg Simmel, and W.E.B. Du Bois, and then move toward more contemporary understandings about culture and society as discussed by symbolic interactionism, feminist theory and poststructuralism. The class is designed to help students understand how theorists think about structures and individuals, how historical time periods and intellectual environments shape theoretical understandings, and how theoretical discussions inform social research. Although much of the material in this class is designed to help students understand theory, another goal of the course is to help students critique existing theories and actually 'do theory.' Prerequisites: SOC 1104 or consent of instructor.

**SOC 3050 Environmental Sociology (3 credits)**

Examines the relationship between society and the environment. Emphasis on political and economic institutions and the consumer lifestyle and values. Considers how the treadmill of production affects ecosystems and discusses possible solutions to environmental problems. Prerequisites: SOC 1104 or consent of instructor.

**SOC 3090 Social and Ethical Issues in Health and Medicine (3 credits)**

Examines social and ethical issues related to the practice of medicine. Students develop an understanding of the sociological causes of illness, the medicalization of society, and the values and assumptions of those who define and deliver medical care in society. Today people point to the fact that we are experiencing a crisis in health care in the U.S. Costs have skyrocketed, access to primary care is inequitable, infant mortality rates remain high, public accountability problems persist, and we continue to emphasize medical care over and above health care. Sociological interpretations raise questions about these issues, and point to the ways in which society continues to produce disease and illness. As these topics are explored through the sociological lens, the complex ethical dilemmas associated with medical understandings and possible alternatives that emphasize health are identified. Liberal Education Goal Area 9.

**SOC 3270 Intersectionality (3 credits)**

This course will explore the complexity of the interaction of race, class, gender, sexuality, citizenship and age on the life chances and positioning of people within social environments. As part of this exploration we will examine aspects of inequality and privilege and the social and political implications of hierarchies. We will also look at how the nature of race, sexuality and gender can create hybrid identities, and communities and cultures that resist and reinforce ethnic and national boundaries.



**SOC 3300 Family and Society (3 credits)**

After a brief introduction to basic sociological concepts, frameworks, methods, and relevant historical materials, students examine several documents that address particular contemporary family issues. Students also learn how to evaluate the materials discussed. Liberal Education Goal Area 5.

**SOC 3310 Community Organizing for Social Change (3 credits)**

This course explores the history of community organizing and how individuals have come together to more deeply understand the rights and obligations of citizenship and how to organize for social justice for themselves and others in their communities. Students will develop deeper knowledge of the overall worldview associated with community organizing and will be able to articulate and apply the tools and tactics to effect change. They will also learn how to assess action taken and they will address how alternative approaches inform future action cycles. Liberal Education Goal Area 9.

**SOC 3320 Social Class and Inequality (3 credits)**

On some level, most people understand that social class matters; rarely do they grasp how by how much. The primary goal of this course is to examine social stratification, particularly focusing on social class, primarily in the contemporary United States, but also including historical and comparative information. It is only by doing so that we can understand why stratification is as it is in the United States and how and why it is different from those systems found elsewhere. Liberal Education Goal Areas 5 & 7.

**SOC 3330 Sociology of Health and Medicine (3 credits)**

In this course we will explore, from a sociological perspective, how health care is organized, inequalities related to health care organization, and how, as an institution, health care systems interact with other institutions. We will also be examining delivery interactions within the medical systems, the culture of medicine, professional power, and who gets to define 'wellness.' Finally, we will explore how health care is shaping individual lives and the understandings of the human.

**SOC 4600 Work and Careers (3 credits)**

Students identify career avenues complementary to their chosen major and develop materials necessary for conducting a job search. In addition, students will learn what sociology has to say about work, occupations, and the organizations within which that work takes place. Prerequisites: Junior or senior standing suggested.

**SOC 4800 Capstone in Sociology (3 credits)**

Students decide on a research question and carry out an independent project.

**SOC 4917 DIS Tchg Assoc | (1-2 credits)**

Directed Independent Study | Teaching Associate

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