

GEOGRAPHY, ENVIRONMENT AND PLANNING

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Programs Offered

Bachelor of Arts in Geography and Environment
Society, Environment, and Development
Environmental Systems
Geospatial Analysis and Technology
Sustainable Communities,
Planning for Sustainable Communities
Minor In Geography and Environment
Bachelor of Science in Environmental Studies
Energy Management and Design

The Department of Geography, Environment, and Planning (GEP) was created in Fall 2017 and reflects a merger of two departments: the Department of Geography and Global Studies, and the Department of Environmental Studies and Planning (ENSP). The new Department's mission is to promote excellence in teaching and research across five areas of focus: human-environment conflict and collaboration, building resilience with environmental systems, the application of geospatial and quantitative analyses to solving complex environmental and societal problems, management and planning for community and environmental sustainability, and urban planning. We prepare students for careers in environmental professions, for graduate studies, and for their role as informed and thoughtful global citizens.

In Fall 2018, the Department will offer a new Geography and Environment BA major. Students currently in the ENSP or Geography major will be able to change to the new major, or keep their original

major in either Environmental Studies and Planning or Geography. The existing BS in Environmental Studies, Energy Management and Design study plan will continue through 2018/19.

Note: The former Majors are detailed on pages 156-157

Careers in Geography, Environment, and Planning

Each concentration within the Geography, Environment, and Planning curriculum provides students with strong interdisciplinary backgrounds in the social and physical sciences, planning, and energy management. This combination of breadth and in-depth instruction allows students to develop the intellectual foundations, skills, and flexibility needed to deal with the specific environmental and social issues of today and the future. Through the interdisciplinary nature of the degree program and concentrations, GEP graduates become prepared for careers in both the public and private sectors including environmental management and restoration, city and regional planning, education and environmental outreach, and residential and commercial energy fields. Graduates from the department often pursue advanced degree programs in a variety of fields (e.g. geography, ecology, planning, environmental law, education).

Admission Requirements

When applying to Sonoma State University and declaring a major, a student may declare a B.A. in Geography and Environment or a B.S. in Environmental Studies, Energy Management and Design. There are no admissions requirements for the B.A. in Geography and Environment degree. The B.S. in Environmental Studies degree requires students attain a minimum GPA of 2.75. A student considering this degree should make an appointment to see a faculty member for academic advising.

Financial Aid and Scholarships

Students seeking financial aid to assist them in their studies should contact the financial aid office. Several scholarships are provided specifically for GEP students through the University scholarship program. Please refer to the Scholarships section of this catalog.

Department Resources

Geospatial Technology Instructional Laboratory (GTIL)

The Geography, Environment, and Planning Department has a well-equipped computer laboratory that supports advanced instruction in geographic information systems (GIS), satellite image processing, digital cartography, and laboratory and field methods' data analysis. The GTIL includes 17 workstations, ArcGIS Desktop, ERDAS Imagine, IDRISI, Adobe Illustrator, and geobrowsers.

Map Library

The Map Library houses an extensive collection of digital and paper maps, and aerial photography.

The Center for Interdisciplinary Geospatial Analysis (CIGA)

The Center for Interdisciplinary Geospatial Analysis promotes the application of geospatial technology to social and environmental problems through research, education, and community service. The lab seeks interdisciplinary collaboration among campus and external researchers, students, and other organizations in projects that involve geographic information and spatial analysis at local to global scales. The CIGA provides computer, software and data resources, Geographic Information System (GIS) and remote sensing expertise, consulting services, educational courses, and community outreach. Students are given a unique opportunity to broaden and refine their education by working on real-world problems in CIGA research projects and service contracts.

The Climate Research Center (CRC)

The Climate Research Center conducts research on climate science phenomena (e.g. hurricanes, droughts, and floods) with a special focus on their connections with climate variability, climate change and human activities. The CRC promotes the application of statistical methods and geographic information systems (GIS) to address climate science problems. The CRC aims to collaborate in multidisciplinary climate research with members of the SSU community, organizations or individuals in the Sonoma area and with researchers globally. The CRC houses state-of-the-art computers and cutting-edge software. Students working in the CRC can experience climate science in action and will gain essential data analysis skills

Sonoma Quaternary Laboratory (SQUAL)

The Sonoma Quaternary Laboratory specializes in reconstructing ecological, climate and landscape change caused by environmental and climate forces as well as human impacts over the past several thousand years. These paleoenvironmental reconstructions provide an important context for evaluating current and future environmental and climate change. The SQUAL houses state-of-the-art equipment for micro- and macro-botanical analysis as well as other sedimentary analyses. Students working in SQUAL have the opportunity to gain unique field and laboratory research skills.

The Center for Sustainable Communities:

The Center for Sustainable Communities (CSC) works with cities and counties, special districts, and regional and state government agencies to develop planning policies and implementation strategies related to climate change and greenhouse gas emissions, planning for healthy communities, the relationship between land use and water resources, and other sustainability and resiliency topics. The CSC utilizes faculty, students, and “enclave career” professionals (recently retired leaders from the environmental professions), providing mentoring and professional development opportunities for students and assistance to our government partners in addressing a wide array of environmental, economic, and social challenges.

The Environmental Technology Center:

A model for sustainable building techniques and technologies, this center includes energy and water-efficient landscaping, “smart building” control technologies, environmentally-sensitive materials, passive solar heating and cooling, and more. It serves as a training facility for building professionals and teachers and as an educational and research site.

The Classroom Garden:

The garden adjacent to the Environmental Technology Center teaches SSU students and members of the public about sustainable landscape practices and how these contribute to biodiversity and environmental health. Through internships, volunteering, and classroom experiences, students gain a sense of place, community, purpose, and an enriched academic experience.

The SSU Botanical and Kenneth M. Stocking Native Plant Garden:

A showcase of diverse California plant communities and a quiet place for education and relaxation. Located near the campus lakes, the garden includes a guided trail through woodland, marsh, and riparian ecosystems.

The Fairfield Osborn Preserve and Galbreath Wildlands Preserve:

Managed by the Center for Environmental Inquiry (CEI), SSU features two valuable off-campus learning environments. The Fairfield Osborn Preserve is 411-acre field station atop Sonoma Mountain that provides environmental education programs and opportunities for scientific research. The Preserve is a fifteen-minute drive from campus. Galbreath Wildlands Preserve is a 3,670 acre preserve nestled in the Coast Range of northern California. The mission of the preserves is to promote environmental education and research, as well as the effective stewardship of this diverse landscape.

Bachelor of Arts in Geography and Environment

Note: Modifications to the curriculum were under review at the time this catalog was published. Please check with the Department of Geography, Environment, and Planning for the most current degree requirements.

In keeping with the disciplines of Geography and Environmental studies, our Geography and Environment degree focuses upon bridging the natural and social sciences in order to produce more holistic and systemic analysis.

Our Geography and Environment degree offers students the option of five concentrations within the broader discipline. These concentrations provide students with disciplinary breadth and allows them to pursue their interests in: Environmental Systems, Society, Environment, and Development, Geospatial Analysis and Technology, Sustainable Communities, and Urban Planning.

Due to the interdisciplinary nature of the degree program all concentrations share foundational and intermediate courses, which ensure that graduates have a strong background in both the natural, social, and quantitative sciences while developing their research and problem-solving skills. The foundational and intermediate courses focus on four areas reflecting our concentrations: Human/Environmental Relations, Environmental Systems, Geospatial, Sustainable Communities and Geospatial and Applied Quantitative Analysis.

More specialized concentration courses provide a depth of knowledge in the student's chosen concentration. All students culminate their studies by taking Professional Development, a minimum of 4 units of Practical Experience, and a two semester Capstone course. In addition, the curriculum strengthens students' writing, critical thinking, and oral presentation skills; areas that are important for any successful career. The department's strong intern program further affords students on-the-job experience.

Degree Requirements

(See page 150 for a sample four-year program.)

Degree Requirements	Units
General education	50
Major Courses	54-72
General Electives	27-35
Total units needed for graduation	120

Note: Courses required for the major must be taken for a traditional letter grade, except for courses that are offered CR/NC only. Students must earn a C- or better in any course applied to the major.

Core Requirement for Major: 33-42 Units

Foundational Courses (12 Units) Choose one from each category

Society, Environment, and Development (choose one)

GEP 203 Human Geography	3
OR	
GEP 206 Society, Environment, and Sustainable Development	3

Environmental Systems

GEP 201 Global Environmental Systems	4
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Sustainable Communities

GEP 215 Environmental Forum	1
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Geospatial and Applied Quantitative Analysis (Choose One)

GEP 202 Quantitative Methods	4
OR	
MATH 165 Introductory Statistics	4

Intermediate Breadth Courses (12 Unit minimum)

Society, Environment, and Development

Environmental systems

Sustainable Communities

Geospatial and Applied Quantitative Analysis

Practical Experience (4 units minimum)

GEP 312 Professional Conferences	1-2
GEP 313 Field Experience	1-2
GEP 314 Field Experience Abroad	2-3
GEP 317 Internship	1-3
GEP 418 Lab Assistant in GEP	2
GEP 419 Teaching Assistant in GEP	2

Capstone Classes (5 units minimum)

GEP 310 Professional Development	1
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Capstone Experience

Choose one of the following:

GEP 490.01a/b Human-Environment Capstone
GEP 490.02a/b Biophysical Capstone
GEP 490.03a/b Planning Workshop*
GEP 490.04 Internship Capstone

Geospatial Science and Technology

This concentration is designed for students interested in geographic information science and its application in resource management, land-use planning, and land-change science.

Foundational courses	12
Intermediate breadth	12-16
Practical Experience	4-5
Capstone	5-9
Core total	33-42

Concentration courses 14-16

Take both courses in Group I and additional courses in Group II to meet a 14 unit minimum in the Concentration beyond Foundational and Intermediate courses taken.

Group I (both required)

GEP 202 Quantitative Methods	4
GEP 387 Intro to GIS	4

Group II (Choose 2-3)

GEP 440 Field Methods	2
GEP 380 Environmental Remote Sensing	4
GEP 385 Cartographic Visualization	3-4
GEP 388 Environmental GIS	3-4
GEP 389 Advanced GIS	3-4
GEP 390 Environmental Data Analysis	4

Supporting courses 12-14

Take CS 115 and 2-3 additional courses to meet a minimum of 12 units. Substitutions possible in consultation with an advisor

CS 115 Programming I	4
CS 210 Intro to UNIX	1
CS 215 Programming II	4
CS 355 Database Management	4
CS 370 Software Design & Dev.	4
CS 386 Selected Topics in CS with Lab	3
ANTH 326 Topics in Archaeology	4
ES 314 Advanced Programming, Simulation and Modeling	4
BIO 485 Biometry	4

Total Units: 59-72

Environmental Systems

This concentration is designed for students who would like to focus on the natural environment, including the nature of biophysical patterns and processes, as well as applied, science-based conservation, restoration, conservation planning, land management, and preservation

Foundational courses	12
Intermediate breadth	2-16
Practical Experience	4-5

Capstone
Core total

5-9
33-42

Core total 33-42

Concentration: 12-14

Choose four or five courses to meet the 15 unit minimum; no more than 6 units in GEP 440-444; no more than 8 units in GEP 380-389

GEP 340 Applied Ecology	3-4
GEP 341 Conservation Biology	3-4
GEP 343 Biogeography	4
GEP 350 Geomorphology	4
GEP 351 Natural Hazards	3-4
GEP 352 Soil Science	3-4
GEP 354 Watershed Hydrology and Management	4
GEP 355 Weather and Climate	4
GEP 356 Global Climate Change: Past, Present, Future	4
GEP 359 Special topics in Environmental Systems	2-4
GEP 387 Intro to GIS	4
GEP 380 Environmental Remote Sensing	4
GEP 388 Environmental GIS	3-4
GEP 389 Advanced GIS	3-4
GEP 390 Environmental Data Analysis	4
GEP 440 Field Methods	2
GEP 441 Lab Methods	2-3
GEP 442 Conservation Research Methods	3
GEP 443a/b Agroecology	1-2
GEP 444a/b Native Plant Propagation	1-2
GEP 445 Restoration Ecology	5

Supporting Courses: 12-14

Choose one of two pathways to meet the 12 unit minimum. Group I: Take BIO 130, 131 and one additional course from the list; Group II; Take BIO 131 and two additional courses from the list, with GEOL 303&304 considered as single combined-course option

Group I

BIOL 130 Intro Cell Biology and Genetics	4
BIOL 131 Biological Diversity and Ecology	4
BIOL 322;323;324;327;329;330;332;333;335;337;341;346	4

Group II

BIOL 131 Biological Diversity and Ecology(required)	4
CS 115 Programming I	4
GEOL 303/304 Adv Principles of Geology/Mapping & Report Writing	5
GEOL 323 Hydrology	4
GEOL 306 Environmental Geology	4
GEOL 310 Geophysics	4
GEOL 311 Sedimentary Geology	4

Total Units: 57-69

Society, Environment, and Development

This concentration is designed for students interested in human-environment relations, sustainable development, natural resource policy and management and the human dimensions of environmental restoration.

Foundational courses	12
Intermediate breadth	12-16
Practical Experience	4-5
Capstone	5-9

Concentration

Choose at least four courses to meet the 15 unit minimum; but no more than one area studies course

GEP 320 Geopolitics	4
GEP 322 Globalization and Environments	4
GEP 323 Resource Mgt & Develmt in Gibll Persp	4
GEP 324 Climate Change & Society	4
GEP 325 Global Food Systems: Scarcity & Sustainability	3-4
GEP 327 Latin America and the Caribbean	4
GEP 328 Africa South of the Sahara	4
GEP 330 Environmental History	4
GEP 331 Restoration and Society	4
GEP 332 Environmental Literature	3
GEP 335 US Environmental Policy	4
GEP 336 US Environmental Law	3
GEP 337 Landscape History of the American West	4
GEP 339 Special Topics in Society, Environment and Develmt	3-4
GEP 341 Conservation Biology	3-4
GEP 364 Environmental Planning	4
GEP 445 Restoration Ecology	5

Supporting Courses: 6-8 Units

Choose any two; substitutions possible in consultation with an advisor; Peace Corp Prep must take UNIV 238 and 200-level language

UNIV 238 Found. of Leadership	3
LANGUAGE (200 level course)	4
BIO 131 Biological Diversity & Ecology	4
ECON 205 Microeconomics	4
ECON 381 Natural Resources & Environmental Economics	4
HIST 471 The American West	4
POLS 314 Environmental Political Theory	4
POLS 452 Politics of the Developing World	4
WGS 385 Globalization and Gender	4
SOCI 482 Sociology of the Environment	4
SSCI 299 Sophomore Seminar: How to Think Like a Social Scientist	3
ANTH 352 Global Issues	4

Total Units: 54-67

Sustainable Communities

This concentration is designed for students interested in social relations and environmental sustainability within urban and rural communities.

Foundational courses	12
Intermediate breadth	12-16
Practical Experience	4-5
Capstone	5-9

Core Total 33-42

Concentration

Choose 3-4 courses to meet 12 unit minimum

GEP 360 Introduction to Planning	3
GEP 361 Planning Theory and Methodology	3-4
GEP 362 Environmental Impact Assessment	2-3

12-15 Units

GEP 363 Land Use Law	3
GEP 364 Environmental Planning	4
GEP 365 Healthy Communities Planning	3-4
GEP 366 Planning for Sustainable Communities	3
GEP 367 Transportation Planning	3
GEP 368 Urban Design I: The Urban Form	3
GEP 369 Urban Design II: Placemaking	3
GEP 370 Globalization and the City	4
GEP 371 Social Geography	3
GEP 373 Energy Technology & Society	4
GEP 473 Thermal Energy Management	3-4
GEP 474 Electrical Energy Management	3-4
GEP 475 Passive Solar Design	3-4
GEP 476 Small-scale Energy Sources	3-4
GEP 477 Computer Applications in Energy Mngt Lab	2-3
GEP 379 Selected Topics in Sustainable Communities	3-4

Supporting Courses 7-8 Units

Choose any two; substitutions possible in consultation with an advisor

ECON 204 Macroeconomics	4
ECON 205 Microeconomics	4
ECON 381 Natural Resources & Environmental Economics	4
POLS 314 Environmental Political Theory	4
POLS 452 Politics of the Developing World	4
WGS 385 Globalization and Gender	4
SOCI 482 Sociology of the Environment	4
SSCI 299 Sophomore Seminar: How to Think Like a Social Scientist	3
ANTH 352 Global Issues	4
Total Units:	52-65

Planning in Sustainable Communities

This concentration is designed for students who would like to follow a pre-professional curriculum in planning.

Foundational courses	12
Intermediate breadth	12-16
Practical Experience (3 units internship required)	4-5
Capstone (GEP 310.02 and GEP 490.03 required)	9
Core total:	33-42

Concentration: 15-17 Units

Choose all in Group I and one from Group 2

Group I

GEP 360 Introduction to Planning	3
GEP 361 Planning Theory and Methodology	3-4
GEP 362 Environmental Impact Assessment	2-3
GEP 363 Land Use Law	3

Group II

GEP 364 Environmental Planning	4
GEP 365 Healthy Communities Planning	3-4
GEP 366 Planning for Sustainable Communities	3
GEP 367 Transportation Planning	3
GEP 368 Urban Design I: The Urban Form	3
GEP 369 Urban Design II: Placemaking	3

Supporting Courses: 6-8 Units

(choose any two; substitutions possible in consultation with an advisor)

BIOL 131 Biological Diversity an Ecology	4
ECON 204 Macroeconomics	4
ECON 205 Microeconomics	4
ECON 381 Ntrl Res & Environ Econ	4
GEOL 323 Hydrology	4
GEOL 306 Envntl geology	4
GEOL 303/304 Adv Geol/Mapping and Report Writing	5
HIST 471 The American West	4
POLS 314 Environmental Political Theory	4
POLS 452 Politics of the Developing World	4
WGS 385 Globalization and Gender	4
SOCI 482 Sociology of the Environment	4
SSCI 299 Sophomore Seminar	3
ANTH 352 Global Issues	4
UNIV 238 Found. of Leadership	3

Total Units: 54-67

Minor in Geography and Environment

Students take the required GEP Foundational courses	8
Society, Environment, and Development (choose one)	
GEP 203 Human Geography	3
OR	
GEP 205 World Regional Geography	3
OR	
GEP 206 Society, Environ, and Sust Development	3
Environmental Systems	
GEP 201 Global Environmental Systems	
Sustainable Communities	
GEP 215 Environmental Forum	1
Upper-division courses chosen in consultation with advisor;	
no more than 3 units in the 310-319 practical experience category	12
Total units in the minor	20

Note: Courses required for the minor must be taken for a traditional letter grade, except for courses that are offered CR/NC only. Students must earn a C- or better in any course applied to the minor.

Bachelor of Science in Environmental Studies

A Bachelor of Science degree is available for students through an Energy Management and Design plan. This program is designed to prepare students for careers or for graduate studies in the fields of residential and commercial energy management, energy-efficient architecture and design, energy planning in industry and government, renewable energy applications, and other energy-related businesses

(See page 157 for a sample four-year programs in the degree)

Degree Requirements	Units
General education (50, 9 in major)	41
Science Support Courses	29-31

Major Requirements	27-29
General Electives	29-33
Total units needed for graduation	120

The following natural science support courses are required for the B.S. degree, in addition to the specific requirements for Energy Management and Design..

Natural Science Support Courses: 29-31 Units

CHEM 115A, B General Chemistry	(GE-B1) 5,5
MATH 161 Calculus 1	(GE-B4) 4
MATH 211-S Calculus II 2	
MATH 165 Elementary Statistics	(GE-B4) 4
Physics: either sequence	
PHYS 210A,B General Physics	(GE-B1) 3,3
PHYS 114, 214 Introduction to Physics I, II	(GE-B1) 4,4

ENSP and EMD Core Courses (27-29 units)

GEP 416 GEP Forum	1
GEP 373 Energy, Technology and Society	4
GEP 473 Thermal Energy Management	4
GEP 474 Electrical Energy Management	4
GEP 416 Energy Forum (taken twice)	2,2
GEP 494/317 Internship in EMD	4
At least two of the following:	
GEP 475 Passive Solar Design	4
GEP 476 Small-Scale Energy	4
GEP 477 Computer Applications in EMD	2

Note: You may need to take upper division courses (300-400 level) in addition to those listed above (and in your upper division GE selection) in order to meet the required number of upper division units for graduation (40).

Recommended Courses

CS 101 Intro to Computing 3

Architectural drafting course at community/junior college

Sample Four-year Program for Bachelor of Arts in Geography and Environment

This is just an example of how one might plan four years as a GEP student. Most GE classes can be taken in any order or sequence. Consult with your advisor for suggestions on when to take particular courses.

FRESHMAN YEAR: 30 Units

<i>Fall Semester (14 Units)</i>	<i>Spring Semester (15-16 Units)</i>
Core Course: GEP 203 or 206 / GE (3)	Core Course: GEP 201 / GE (B1) (4)
GE English 100a/101 (3)	GE/Elective (3-4)
GE Math 131 or 165 (4)	GE/Elective (4)
GE/Ethnic studies (4)	GE/Elective (4)

SOPHOMORE YEAR: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
Core course GEP 215 (1)	Core Course: Quantitative Reasoning (4)
GE/Elective (4)	GE/Elective (3)
GE/Elective (3)	Supporting Course (4)
GE/Elective (3)	Disciplinary Breadth (4)
Supporting Course (4)	

JUNIOR YEAR: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
Upper Division GE (3)	Disciplinary Breadth (4)
Upper Division GE (3)	Disciplinary Breadth (3)
Concentration (3)	Concentration (3)
Disciplinary Breadth (3)	GEP 310 Professional Development (1)
University Elective (3)	

SENIOR YEAR: 30 Units

<i>Fall Semester (16 Units)</i>	<i>Spring Semester (14 Units)</i>
Concentration (3)	Concentration (4)
Concentration (3)	Concentration (3)
Supporting Course (3-4)	Upper Division GE (3)
Capstone Pre-seminar (1)	Capstone (4)
University Electives (6)	

TOTAL UNITS: 120

Sample Four-year Program for Bachelor of Arts in Geography

This suggested plan urges students to take one of the lower-division introductory geography courses in the spring of their freshman year. This plan does not identify a concentration, elective courses within the major, or supporting courses, both of which should be chosen after consultation with the Geography advisor(s). The sequence of courses is a suggestion only, so please see your Geography advisor each semester for assistance.

FRESHMAN YEAR: 30 Units

<i>Fall Semester (16 Units)</i>	<i>Spring Semester (14 Units)</i>
GE MATH (B4) (3)	GE PHIL 101 (A3) (4)
GE ENG 101 (A2) (4)	GE GEOG 203 (D2) (3)
GE (3)	GE (4)
GE (3)	University Elective (3)
University Elective (3)	

SOPHOMORE YEAR: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
GE (3)	GEOG 201 (B3) (4)
GE (3)	GE (3)
GE (3)	GE (3)
GE (3)	GE (3)
University Elective (3)	University Elective (2)

JUNIOR YEAR: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
Upper-Division GE (3)	Upper-Division GE (3)
GEOG (Upper-Div Regional) (4)	GEOG (Upper-Div. Human) (4)
GEOG (Upper-Div. Techniques) (4)	GEOG (Upper-Div. Biophysical) (4)
Upper-Div. Supporting (4)	University Elective (4)

SENIOR YEAR: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
Geography 490A (1)	GEOG 490B (4)
Geography Elective (3-4)	Upper-Division Supporting (4)
Geography Elective (4)	Internship or Geography Elective (4)
Upper-Division GE (3)	University Elective (3)
University Elective (3-4)	

TOTAL UNITS: 120

Sample Four-Year Program for Bachelor of Arts in ENSP-Conservation and Restoration (with Geography minor)*

Track II, Social Sciences Emphasis

This is only an example of how one might plan out your four years as a C&R Track II student; the only classes that have specific prerequisites are noted. Most GE classes can be taken in any order or sequence. Please consult with your advisor for suggestions of when to take particular courses, or when choosing electives. Students must complete a total of 120 units to meet university graduation requirements.

FRESHMAN YEAR: 30 Units

<i>Fall Semester (13-16 Units)</i>	<i>Spring Semester (13-16 Units)</i>
MATH 165 (B4) (4)	ECON 205 (D1) (4)
GE/Elective (3-4)	GE/Elective (3-4)
GE/Elective (3-4)	GE/Elective (3-4)
GE/Elective (3-4)	GE/Elective (3-4)

SOPHOMORE YEAR: 30 Units

<i>Fall Semester (13-16 Units)</i>	<i>Spring Semester (14-17 Units)</i>
GEOG 203 (D2) (3)	GEOG 201 (B1) (4)
ENSP 201 (1)	SSCI 299 (1)
GE/Elective (3-4)	GE/Elective (3-4)
GE/Elective (3-4)	GE/Elective (3-4)
GE/Elective (3-4)	GE/Elective (3-4)

JUNIOR YEAR: 30 Units

<i>Fall Semester (13-16 Units)</i>	<i>Spring Semester (15-16 Units)</i>
ENSP 302 (4)	ENSP 322 (4)
ENSP 307 (4)	ENSP 401 (4)
Elective in Major (2-4)**	GEOG Elective for Minor (4)
Upper-Division GE (3-4)	Upper-Division GE (3-4)

SENIOR YEAR: 30 Units

<i>Fall Semester (12-14 Units)</i>	<i>Spring Semester (14-16 Units)</i>
ENSP 416 (4) OR ENSP 404 (3)	ENSP 425 (4)
GEOG 387 (4)	ENSP 497 (2)
Upper-Division GE (3-4)	ENSP 499 - Internship (2)
ENSP 499 - Internship (2)	GEOG Elective for Minor (4)**
	Elective in Major (2-4)

TOTAL UNITS: 120

* Please note that the Geography minor is optional, not required

** See study plan for list of eligible courses.

Sample Four-Year Program for Bachelor of Arts in ENSP-Energy Management and Design

FRESHMAN YEAR: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
CHEM 115A (5)	GE (A3) (4)
ECON 205 (4)	GE (B2) (4)
GE (A1) (3)	GE (C) (4)
GE (A2) (3)	GE (D1) (3)

SOPHOMORE YEAR: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
MATH 160 (4)	ENSP 202 (3)
GE (C) (4)	PHYS 210A (3)
GE (D2) (3)	GE (D3) (3)
GE (C) (4)	GE (D4) (3)
	GE (D5) (3)

JUNIOR YEAR: 32 Units

<i>Fall Semester (16 Units)</i>	<i>Spring Semester (16 Units)</i>
ENSP 201 (1)	ENSP 401 (2)
ENSP 307 (4)	ENSP 430 (4)
ENSP 330 (4)	ENSP 437 (4)
ENSP 337 (4)	GE (E) (3)
GE (B3) (3)	Elective (3)

SENIOR YEAR: 28 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (13 Units)</i>
ENSP 303 (4)	ENSP 430 (2)
ENSP 338 (4)	ENSP 438 (4)
ENSP 499 - Internship (4)	Elective (4)
Elective (3)	Elective (3)

TOTAL UNITS: 120

Sample Four-Year Program for Bachelor of Arts in ENSP-Planning

This is just an example of how one might plan four years as a Planning student. Classes that have prerequisites are noted, though those prerequisites can change. Most GE classes can be taken in any order or sequence. Consult with your advisor for suggestions on when to take particular courses and when choosing electives.

FRESHMAN YEAR: 30 Units

<i>Fall Semester (13-16 Units)</i>	<i>Spring Semester (13-16 Units)</i>
ENSP 200 (D5) (3)	MATH 165 (B4) (4)
ENSP 201 (1)	GE/Elective (3-4)
GE/Elective (3-4)	GE/Elective (3-4)
GE/Elective (3-4)	GE/Elective (3-4)
GE/Elective (3-4)	

SOPHOMORE YEAR: 30 Units

<i>Fall Semester (13-16 Units)</i>	<i>Spring Semester (13-16 Units)</i>
GEOG 203 (D2) (3)	ECON 205 (D1) (4)
ENSP 201 (1)	GE/Elective (3-4)
GE/Elective (3-4)	GE/Elective (3-4)
GE/Elective (3-4)	GE/Elective (3-4)
GE/Elective (3-4)	

JUNIOR YEAR: 30 Units

<i>Fall Semester (13-15 Units)</i>	<i>Spring Semester (14-16 Units)</i>
ENSP 302 (4)	ENSP 303 (4)
ENSP 310 (3)	ENSP 311 (4)
A Course from the "Planning Skills" Category (3-4)	A Course from the "Humanities" Category (3-4)
Upper-Division GE (3-4)	Upper Division GE (3-4)

SENIOR YEAR: 30 Units

<i>Fall Semester (15-18 Units)</i>	<i>Spring Semester (11-12 Units)</i>
ENSP 315 (3)	ENSP 411B (4)
ENSP 411A (4)	ENSP 415 (3)
ENSP 499 - Internship (3)	ENSP 498 (1)
A Course from the "Technical and Research Skills" Category (2-4)	An Additional Course from the "Planning Skills" Category (3-4)
Upper-Division GE (3-4)	

TOTAL UNITS: 120

Sample Four-Year Program for Bachelor of Science in ENSP-Energy Management and Design

FRESHMAN YEAR: 31 Units

Fall Semester (15 Units)

CHEM 115A (5)
GE (A1) (3)
GE (A2) (3)
GE (A3) (4)

Spring Semester (16 Units)

CHEM 115B (5)
MATH 161 (4)
GE (C) (4)
GE (D1) (3)

SOPHOMORE YEAR: 30 Units

Fall Semester (14 Units)

MATH 211S (2)
PHYS 114 (4)
GE (B2) (4)
GE (C) (4)

Spring Semester (16 Units)

PHYS 214 (4)
GE (D2) (3)
GE (D3) (3)
GE (D4) (3)
GE (D5) (3)

JUNIOR YEAR: 31 Units

Fall Semester (16 Units)

ENSP 201 (1)
ENSP 330 (4)
ENSP 338 (4)
GE (C) (4)
Elective (3)

Spring Semester (15 Units)

ENSP 430 (2)
ENSP 438 (4)
GE (E) (3)
Elective (3)
Elective (3)

SENIOR YEAR: 28 Units

Fall Semester (15 Units)

MATH 165 (4)
ENSP 337 (4)
ENSP 499 - Internship (4)
Elective (3)

Spring Semester (13 Units)

ENSP 430 (2)
ENSP 437 (4)
Elective (4)
Elective (3)

TOTAL UNITS: 120