

# Resource and Environmental Studies Concentration

## Bachelor of Science Degree with a major in Geography

Effective Fall 2016

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**Major Faculty:** Dr. Tom Ballinger, Dr. Denise Blanchard-Boehm, Dr. David Butler, Dr. Richard Dixon, Dr. Richard Earl, Dr. Ron Hagelman, Dr. Colleen Hiner, Dr. Jason Julian, Dr. Kimberley Meitzen, Dr. James Petersen, and Dr. John Tiefenbacher

For all faculty office locations, phone numbers, e-mail addresses, and office hours, as well as information about Geography Department people, programs, courses and activities, check the Texas State Geography Web Site at [www.geo.txstate.edu](http://www.geo.txstate.edu) and bulletin boards on ELA 1<sup>st</sup> and 3<sup>rd</sup> floors.

**Major Concentration Description:** The Resource and Environmental Studies concentration prepares students for a wide variety of government and private sector occupations relating to resource conservation and/or environmental management. Check <http://www.geo.txstate.edu> for more information.

Graduates pursue careers with employers such as the Texas General Land Office, the Texas Commission on Environmental Quality (TCEQ), the Texas Department of Transportation, Texas Parks and Wildlife, the National Geographic Society, the Lower Colorado River Authority, the San Antonio Water System, Motorola, Valero Energy and various private – sector environmental consulting firms.

### Degree/Major Requirements

1. Students majoring in Resource and Environmental Studies complete the Bachelor of Science (B.S.) degree.
2. The B.S. degree requires a minimum of 36 semester hours of Geography.
3. This degree requires at least a 2.5 GPA for geography courses attempted at Texas State University and at least a 2.25 GPA for all courses taken at Texas State University.
4. Students must make a grade of “C” or better in all Geography courses that are to be counted for credit toward their major.
5. The degree requires a minor area of study with a minimum of 18 semester hours.
6. Texas State requires a minimum of 120 semester hours of coursework to graduate including: a) General Education Core requirements; b) major requirements; c) minor requirements; and d) additional elective courses selected from disciplines other than major or minor.
7. At least 36 semester hours must be advanced (3000 – 4000) level courses.
8. At least 9 semester hours must be writing intensive (WI).

**Minor Requirements:** Minor may be any approved Texas State minor. Geology, Physics, Biology, Chemistry, Anthropology, Computer Science, Mathematics, or Plant and Soil Science minors are highly recommended to complement your Resource and Environmental Studies Major. Other minors may be appropriate depending upon your interests and career goals. Discuss possible options with your advisor.

**Optional Certificates:** Certificates are designed to enhance your employability and offer you a firm foundation in a particular discipline that is complementary to your major field of study. The courses that you complete for a certificate may count toward your major or minor depending on your field of study. If you are interested in pursuing a certificate, please see Stella LoPachin in ELA room 130.

GIS - Geographic Information Science - 20 hours  
Environmental Interpretation - 16 hours

Location Analysis - 16 to 18 hours  
Water Resources Policy - 16 to 17 hours

# Resource and Environmental Studies Course Checklist

## Bachelor of Science: 36 Semester Hours Minimum

**STUDENTS MUST MAKE A GRADE OF “C” OR BETTER IN ALL GEOGRAPHY COURSES THAT ARE TO BE COUNTED FOR CREDIT TOWARD THEIR MAJOR.**

### REQUIRED of all Geography majors: (14 hours)

- 1309 Introduction to Cultural Geography **or** 1310 World Geography
- 2410 Introduction to Physical Geography (Prerequisite: MATH 1315 or above [excluding MATH 1316] with a grade of “C” or higher.)
- 2426 Fundamentals of GIS (Prerequisite: MATH 1315 or above [excluding MATH 1316] with a grade of “C” or higher.)
- 3301 Research Methods in Geography (Prerequisite: MATH 1315 or above [excluding MATH 1316] with a grade of “C” or higher.)

### CORE: (12-13 hours)

#### *At least one from:*

- 2310 Introduction to Environmental Geography **and/or** 3313 Natural Resource Use and Management

#### *At least two from:*

- 3321 Energy Resource Management (Prerequisite: MATH 1315 or above [excluding MATH 1316] with a grade of “C” or higher.)
- 3434 Water Resources (Prerequisite: GEO 2410 or CHEM 1141/1341 with a grade of “C” or higher.)
- 4350 Solid Waste Planning and Management (Prerequisite: GEO 2410 or equivalent with a grade of “C” or higher.)
- 4352 Air Quality Management (Prerequisite: GEO 2410 or 3305 or CHEM 1141/1341 with a grade of “C” or higher.)

#### *Required Capstone Course:*

- 4313 Environmental Management (WI) (Prereq: GEO 2410 or equivalent with a grade of “C” or higher and Senior status.)

### TECHNIQUES: You may select *at least one* of the following courses (more hours are recommended)

- 3411 Map and Mapmaking (Prerequisite: GEO 2426 with a grade of “C” or higher.)
- 3416 Principles of Remote Sensing (Prerequisite: GEO 2410 with a grade of “C” or higher.)
- 4430 Field Methods (Prerequisite: GEO 2410 and GEO 3301 with a grade of “C” or higher.)

### ELECTIVES: Select from the following courses to complete 36 hours requirements

- 1305 Meteorology
- 3134 Water Quality Monitoring and Management (Pre or Co-Prerequisite: GEO 3434 with a grade of “C” or higher.)
- 3303 Economic Geography
- 3305 Climatology (Prerequisite GEO 2410 or BOTH MATH 1315 and GEO 1305 with a grade of “C” or higher.)
- 3310 Urban Geography
- 3320 Community and Regional Planning (WI)
- 3325 Geomorphology (Prerequisite GEO 2410 or GEOL 1410 with a grade of “C” or higher.)
- 3335 Oceanography (Prerequisite GEO 2410 or GEOL 1410 or BIO 1320 or BIO 1430 with a grade of “C” or higher.)
- 3340 Political Geography
- 3349 Population Geography
- 3426 Advanced GIS (Prereq: GEO 2426 and GEO 3301 with a grade of “C” or higher.)
- 4309 Cultural Geography (WI) (check with advisor)
- 4310 Regional Field Studies (WI) (check with advisor)
- 4314 River Basin Management (WI) **Spring Only.** (Prerequisite: GEO 3434 or GEO 4325 with a grade of “C” or higher.)
- 4316 Landscape Biogeography (Prerequisite: GEO 2410 or equivalent with a grade of “C” or higher.)
- 4322 Interpretive Environmental Geography (WI)
- 4323 Conservation Leadership (Prerequisite: Junior or Senior standing.)
- 4325 Fluvial Processes -**Fall Only** (Prerequisite: GEO 3325 or 3434 with a grade of “C” or higher.)
- 4326 Parks & Protected Places (Prerequisite: Junior or Senior status.)
- 4334 Groundwater Resources – **Fall Only** (Prerequisite: GEO 3434 with a grade of “C” or higher.)
- 4339 Environmental Hazards and Land Management (Prerequisite: GEO 2410 or equivalent with a grade of “C” or higher.)
- 4341 Water policy – **Fall Only** (Prerequisite GEO 3434 with a grade of “C” or higher.)
- 4380 Internship in Geography
- 4393A Environmental Compliance
- 4412 Digital Remote Sensing (WI) (Prerequisite: GEO 3301 and GEO 3416 with a grade of “C” or higher.)
- Regional Geography Electives (**One course may be selected as an approved elective**): GEO 3307 Europe, GEO 3308 Latin America, GEO 3309 US & Canada (WI), GEO 3328 N. Africa & Middle East, GEO 3329 Texas, GEO 3332 S & SE Asia (WI), GEO 3333 China and Japan (WI), GEO 4306 Southwest US, GEO 4328 Russian Realm (WI).