# Bachelor of Science, Major in Environmental Science (Sustainability)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Bachelor of Science, Major in Environmental Science (Sustainability)</td>
<td></td>
</tr>
<tr>
<td><strong>Core Curriculum</strong></td>
<td></td>
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</tr>
<tr>
<td>Component Area I (Communication)</td>
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<td>6</td>
</tr>
<tr>
<td>Component Area II (Mathematics)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Component Area III (Life and Physical Science)</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Component Area IV (Language, Philosophy, and Culture)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Component Area V (Creative Arts)</td>
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</tr>
<tr>
<td>Component Area VI (U.S. History)</td>
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<td>6</td>
</tr>
<tr>
<td>Component Area VII (Political Science/Government)</td>
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<td>6</td>
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<tr>
<td>Component Area VIII (Social and Behavioral Sciences)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Component Area IX (Component Area Option)</td>
<td></td>
<td>4</td>
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<tr>
<td><strong>Degree Specific Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 1411</td>
<td>General Botany</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 1406</td>
<td>General Biology I</td>
<td></td>
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<tr>
<td>BIOL 1413</td>
<td>General Zoology</td>
<td>4</td>
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<tr>
<td>or BIOL 1407</td>
<td>General Biology II</td>
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</tr>
<tr>
<td>CHEM 1411</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>Pre Calculus Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 3379</td>
<td>Statistical Methds in Practice</td>
<td></td>
</tr>
<tr>
<td>or STAT 3379</td>
<td>Statistical Methds in Practice</td>
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<tr>
<td><strong>Major: Foundation</strong></td>
<td></td>
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<tr>
<td>BIOL 1401</td>
<td>Environmental Science</td>
<td>4</td>
</tr>
<tr>
<td>BIOL/GEOG 3320</td>
<td>Sustainability and Environment</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3409</td>
<td>General Ecology</td>
<td>4</td>
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<tr>
<td>BIOL 4374</td>
<td>Biostatistics</td>
<td>3</td>
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<tr>
<td>ECON 3352</td>
<td>Energy &amp; Environmental Econ</td>
<td>3</td>
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<tr>
<td>or GEOG 4351</td>
<td>Economic Geography</td>
<td></td>
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<tr>
<td>GEOG 1401</td>
<td>Weather and Climate</td>
<td>4</td>
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<tr>
<td>GEOG 2464</td>
<td>Intro to Geographic Info Sys</td>
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</tr>
<tr>
<td>GEOG 3310</td>
<td>Sustainable Development</td>
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<tr>
<td>GEOG 4331</td>
<td>Conservation of Natural Res</td>
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<tr>
<td>GEOG 4432</td>
<td>Geomorphology</td>
<td>3-4</td>
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<tr>
<td>or GEOG 4330</td>
<td>Hydrology and Water Resources</td>
<td></td>
</tr>
<tr>
<td>GEOG 4361</td>
<td>Geographic Information Systems for Public Health</td>
<td>3-4</td>
</tr>
<tr>
<td>or GEOG 4468</td>
<td>Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
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<tr>
<td>GEOL 1403</td>
<td>Physical Geology</td>
<td></td>
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<tr>
<td>GEOL 1405</td>
<td>Geologic &amp; Environmental Hazards</td>
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<tr>
<td>GEOL 3326</td>
<td>Environmental Geology</td>
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<tr>
<td>PLSC 3440</td>
<td>Soil Science</td>
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<tr>
<td>POLS 3395</td>
<td>Environmental Policy</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 3336</td>
<td>Social Change And Development</td>
<td>3</td>
</tr>
<tr>
<td>or SOCI 4337</td>
<td>Environment And Society</td>
<td></td>
</tr>
<tr>
<td>or POLS 3366</td>
<td>Public Administration</td>
<td></td>
</tr>
<tr>
<td><strong>Major: Prescribed Advanced Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 17 hours from the following advanced electives:</td>
<td></td>
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</tr>
</tbody>
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Bachelor of Science, Major in Environmental Science (Sustainability)

AGET 3383  Soil & Water Conservation Engr
BIOL 3461  Wildlife Biology
BIOL 4330  Aquatic Biology
ENGL 3330  Intro to Technical Writing
ENVR 4361  Environ Sci Field Exp
GEOG 3301  Environmental Geography
GEOG 3350  Cultural Geography
GEOG 4330  Hydrology and Water Resources
GEOG 4333  Field Studies
GEOG 4356  Urban Geography
GEOG 4357  Population Geography
GEOG 4361  Geographic Information Systems for Public Health
GEOG 4365  Applied Geographic Info Systms
GEOG 4468  Remote Sensing
GEOL 3330  Oceanography
GEOL 4426  Hydrogeology
HLTH 4390  Environmental Health
PHIL 3372  Philosophy of Science
PHIL 4306  Philosophy of Biology
PHIL 4334  Environmental Ethics
PLSC 4330  Soil Fertility Mgt Fertilizers
PLSC 4370  Forage Crops & Pasture Mgmt
PLSC 4397  Integrated Pest Management
POLS 3302  Introduction to Public Policy
POLS 3339  Nonprofit Organizations
POLS 3366  Public Administration
SOCI 4337  Environment And Society
WMGT 3382  Habitat & Pond Management

Minor: Not Required

Total Hours 120-122

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.0 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

First Year

Fall  Hours  Spring  Hours
BIOL 1401  1  4  Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)
Bachelor of Science, Major in Environmental Science (Sustainability)

ENGL 1301 2
GEOG 1401 1
HIST 1301 3
MATH 1314 4

Second Year
Fall
Component Area V (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)
Component Area VIII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)

Spring
Component Area IV (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)
Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavix)

ENGL 1302
MATH 1314

Fall
BIOL 1411 or 1406
MATH 1342, 3379, or STAT 3379
POLS 2305

Spring
HIST 1301
GEOL 1403 or 1405

17
15

Third Year
Fall
BIOL 3320 or GEOG 3320
BIOL 3409
GEOG 4331
GEOG 4468 or 4361

Spring
ECON 3352 or GEOG 4351
4 GEOG 4432 or 4330
3 or 4 GEOG 4330
3 or 4 POLS 3395

16
17

Fourth Year
Fall
BIOL 4374
GEOG 3310
PLSC 3440

Spring
3 Prescribed Advance Elective (Environmental Science)
3 Prescribed Advance Elective (Environmental Science)
4 Prescribed Advance Elective (Environmental Science)

13-14
15-16

Total Hours: 120-122

1 Satisfies the Core Curriculum requirement for Component Area III (Life and Physical Science).
2 Satisfies Core Curriculum requirement for Component Area I (Communication).
3 Satisfies Core Curriculum requirement for Component Area VI (U.S. History).
4 Satisfies the Core Curriculum requirement for Component Area II (Mathematics). MATH 1314 satisfies prerequisite requirement for CHEM 1411 and BIOL 4374.
5 ECON 2301 satisfies Component Area VIII (Social and Behavioral Sciences) as well as serves as a prerequisite for ECON 3352.
6 Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).
7 SOCI 2319 satisfies Component Area VIII (Social and Behavioral Sciences) as well as serves as a prerequisite for SOCI 3336.
8 GEOG 2355 or GEOG 2356 is recommended plus 1 semester credit hour.
9 See, Major: Prescribed Advanced Elective (Environmental Science) course list below.

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GEOG 3350  Cultural Geography  3
GEOG 4330  Hydrology and Water Resources  3
GEOG 4333  Field Studies  3
GEOG 4356  Urban Geography  3
GEOG 4357  Population Geography  3
GEOG 4361  Geographic Information Systems for Public Health  3
GEOG 4365  Applied Geographic Info Sysyms  3
GEOG 4432  Geomorphology  4
GEOG 4468  Remote Sensing  4
GEOL 3330  Oceanography  3
GEOL 4426  Hydrogeology  4
HLTH 4390  Environmental Health  3
PHIL 3372  Philosophy of Science  3
PHIL 4306  Philosophy of Biology  3
PHIL 4334  Environmental Ethics  3
PLSC 4330  Soil Fertility Mgt Fertilizers  3
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PLSC 4397  Integrated Pest Management  3
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POLS 3339  Nonprofit Organizations  3
POLS 3366  Public Administration  3
SOCI 4337  Environment And Society  3
WMGT 3382  Habitat & Pond Management  3

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Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

A minor is not required for this degree program; however, a student has the option to add a minor, but to do so additional semester credits hours will be needed above the degree program's stated total semester credit hours. All minors can be paired with this degree program.

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The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's 60x30TX plan and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The BS in Environmental Science (Sustainability) is designed to provide graduates with the following marketable skills:

- Use the scientific method to address environmental problems.
- Think critically.
- Generate and/or interpret geospatial data based geographic information systems (GIS) and remote sensing.
- Apply knowledge of the environment and ecosystems to address environmental issues.
- Problem solve.