

# BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE (2020-2022 CATALOG) PRESCRIBED WORK: REQUIRED BY ALL THREE TRACKS IN THE EVS PROGRAM

| University Core Curriculum     | 42 hours required. See EVS Program Office for approved course list.  |  |  |
|--------------------------------|--|--|--|
| University Core Curriculum     | Some EVS Prescribed Work will satisfy core requirements.   |  |  |
| Mathematics                    | <u>Differential and integral calculus required. Options:</u>   |  |  |
| wathematics                    | - M 408C (Differential & Integral Calculus), <b>OR</b>   |  |  |
|                                | - M 408K or N AND M 408L or S (Differential Calculus and Integral Calculus)  |  |  |
|                                | 3 courses required:  |  |  |
|                                | CH 301(H) (Principles of Chemistry I), AND   |  |  |
| Chemistry                      | CH 302(H) (Principles of Chemistry II), AND  |  |  |
|                                | CH 204 (Introduction to Chemical Practice)   |  |  |
|                                | 1 pair required. Options:  |  |  |
|                                | - PHY 317K & PHY 117M (General Physics I with Lab), <b>OR</b>  |  |  |
| Physics                        | - PHY 303K & PHY 103M (Engineering Physics I with Lab), <b>OR</b>  |  |  |
|                                | - PHY 301 & PHY 101L (Mechanics I with Lab)  |  |  |
|                                | 1-2 courses required, depending on sequence. Options:  |  |  |
| Biology                        | - BIO 311C & BIO 311D (Introductory Biology I & II), <b>OR</b>   |  |  |
| ыоюду                          | - BIO 315H (Honors Introduction to Genetics)   |  |  |
|                                | 2 courses required. Options:   |  |  |
|                                | - BIO 373 & BIO 373L (Ecology & Ecology Field Lab) <sup>1</sup> , <b>OR</b>  |  |  |
| Ecology                        | - MNS 320 & MNS 120L (Marine Ecology & Marine Ecology Lab), <b>OR</b>  |  |  |
|                                | - BIO 337 & NSC 109 (Reefs & Rainforests Maymester – Australia)  |  |  |
|                                | 3 courses required:  |  |  |
|                                |  |  |  |
| Geological Sciences            | Geological Sciences course in Sustainability <sup>2</sup> , AND     GEO 404 (St. i.e. l. c. i. |  |  |
|                                | GEO 401 (Physical Geology) or GEO 303 or GRG 401C, AND   |  |  |
|                                | GEO 346C (Intro to Hydrogeology)   |  |  |
| Geography                      | 1 course required:   |  |  |
| <u> </u>                       | GRG 335N (Landscape Ecology)   |  |  |
| Field Experience               | 1 course required:   |  |  |
| ·                              | EVS 311 (Introductory Field Seminar)   |  |  |
| Research Methods               | 1 course required:   |  |  |
| Fundamental and Costainable    | EVS 121 (Research Methods for Environmental Science)   |  |  |
| Environmental and Sustainable  | 1 course required. See EVS Program Office for approved course list.  |  |  |
| Policy, Ethics, & History      | 1 course required. Options:  |  |  |
| Geographic Information Systems | - GRG 460G (Environmental Geographic Systems), <b>OR</b>   |  |  |
|                                | - GRG 462K (Intro to Remote Sensing of the Environment), <b>OR</b>   |  |  |
| (GIS)                          | - GEO 327G (Geographic Information Systems)  |  |  |
| Climates 9 Octobr              | 1 course required. See EVS Program Office for approved course list.  |  |  |
| Climates & Oceans              | 1 Course required. See Evs Program Office for approved Course list.  |  |  |
| Environmental Economics,       | 1 course required:   |  |  |
| Sustainability, & Business     | ECO 304K (Introduction to Microeconomics)  |  |  |
|                                | 2 courses required:  |  |  |
| Capstone Research Experience   | EVS 271 (Capstone Research Experience Prep), AND   |  |  |
|                                | EVS 371 (Capstone Research Experience)   |  |  |
|                                | 2 courses required:  |  |  |
| Soniar Saminara                | EVS 141 (Professional Development Seminar), AND  |  |  |
| Senior Seminars                | EVS 141 (Professional Development Seminar), AND     EVS 151 (Research & Communication Seminar)   |  |  |
|                                | EAS 191 (Vesearch & Communication Setting)   |  |  |

<sup>&</sup>lt;sup>1</sup> Biology track students are required to take the BIO 373 and 373L option to complete this requirement.

<sup>&</sup>lt;sup>2</sup> This requirement is traditionally satisfied through UGS 303 Sustaining a Planet.

#### **EVS-GEOGRAPHY TRACK**

#### Major Requirements, EVS-Geography Track

30 hours of approved Geography coursework required, including 18 hours upper-division and 18 hours in residence:

|                       | 2 courses required:  |  |
|-----------------------|--|--|
| Geographical Sciences | GRG 401C (The Natural Environment), AND  |  |
|                       | GRG 404E (A Changing World)  |  |
| Additional Geography  | 24 hours required. See EVS Program Office for approved course list.                |  |
| Coursework            | Courses counted toward EVS Prescribed Work may also count toward this requirement. |  |

## Additional Prescribed Coursework, College of Liberal Arts

| Foreign Language/Culture                                  | <ul> <li>1-2 courses required, depending on sequence. Options:</li> <li>Second-semester proficiency in a foreign language, OR</li> <li>Two foreign culture courses in the same category, OR</li> <li>Combination of foreign language and foreign culture in the same category</li> <li>See EVS Program Office for approved course lists.</li> </ul> |  |
|---|---|--|
| Additional Social Science                                 | 1 course required in addition to the core Social and Behavioral Science requirement.  See EVS Program Office for approved course list.  |  |
| Cultural Expression, Human Experience and Thought (CEHET) | 1 course required. See EVS Program Office for approved CEHET course list.  A course counted toward any core curriculum requirement or any portion of the EVS Prescribed Work MAY NOT also count toward this requirement.  |  |

## Flag Requirements, College of Liberal Arts

| National Element                    | 3 courses required, at least one must be upper-division. 2 writing flags typically fulfilled by: |  |
|-------------------------------------|--|--|
| Writing Flags                       | GRG 404E (EVS-GRG track)   |  |
|                                     | EVS 121 (EVS Prescribed Work)  |  |
| Global Cultures Flag                | 1 course required.   |  |
| Cultural Diversity in the U.S. Flag | 1 course required.   |  |
| Quantitative Beasening Flag         | 1 course required. Typically fulfilled by:   |  |
| Quantitative Reasoning Flag         | Math or science course taken at UT for the EVS degree  |  |
| Ethics and Leadership Flag          | 1 course required. Typically fulfilled by:   |  |
| GRG 404E (EVS-GRG track)            |  |  |
| Independent Inquiry Flag            | 1 course required. Typically fulfilled by:   |  |
| mucpendent inquiry riag             | EVS 371 (EVS Prescribed Work)  |  |

#### Degree Totals, EVS and College of Liberal Arts

| 126 hours total                      |  |
|--------------------------------------|--|
| 36 hours upper-division              |  |
| 18 hours upper-division in residence |  |
| 60 hours in residence                |  |

#### **EVS-GEOLOGY TRACK**

# Major Requirements, EVS-Geology Track

36 hours of coursework, including at least 12 upper-division hours of approved coursework in the Geological Sciences as follows:

|                              | Multivariable calculus required. Options:   |  |
|------------------------------|---|--|
| Mathematics                  | M 408D (Sequences, Series, and Multivariable Calculus), <b>OR</b>                                 |  |
|                              | M 408M (Multivariable Calculus)   |  |
|                              | 1 pair required. Options:   |  |
|                              | PHY 317L & 117N (General Physics II with Lab), <b>OR</b>  |  |
| Physics                      | PHY 303L & 103N (Engineering Physics II with Lab), OR   |  |
|                              | PHY 316 & 116L (Electricity and Magnetism with Lab)   |  |
|                              | 4 courses required:   |  |
|                              | GEO 405 (Life Through Time), AND  |  |
| Geological Sciences          | GEO 416K (Earth Materials), AND   |  |
|                              | GEO 416M (Sedimentary Rocks), AND   |  |
|                              | GEO 420K (Intro to Field & Stratigraphic Methods)   |  |
|                              | 1 course required. Options:   |  |
|                              | - GEO 338J (Marine Geology)   |  |
|                              | - GEO 347D (Global Warming)   |  |
|                              | - GEO 347G (Climate System Modeling)  |  |
|                              | - GEO 376E (Environmental Isotope Geochemistry)   |  |
| Climate & Water              | - GEO 371T (Paleoclimatology)   |  |
| Cililate & Water             | - GEO 476K (Groundwater Hydrology)  |  |
|                              | - GEO 476M (Chemical Hydrogeology)  |  |
|                              | - GEO 376S (Physical Hydrology)   |  |
|                              | - GEO 377P (Physical Climatology)   |  |
|                              | One course MAY NOT be used to fulfill both the EVS Climates & Oceans requirement (EVS Prescribed) |  |
|                              | and the Climate & Water requirement   |  |
| Upper-Division GEO Electives | 9 hours of additional upper-division coursework in the Geological Sciences required.              |  |

#### Flag Requirements, Jackson School of Geosciences

| Writing Flags                       | 2 courses required. 1 writing flag typically fulfilled by:            |  |  |
|-------------------------------------|---|--|--|
|                                     | EVS 121 (EVS Prescribed Work)   |  |  |
| Global Cultures Flag                | <u>1 course required.</u>   |  |  |
| Cultural Diversity in the U.S. Flag | 1 course required.  |  |  |
| Quantitative Reasoning Flag         | 1 course required. Typically fulfilled by:                            |  |  |
|                                     | Math or science course taken at UT for the EVS degree                 |  |  |
| Ethios and Londonship Flor          | <u>1 course required. Typically fulfilled by:</u>                     |  |  |
| Ethics and Leadership Flag          | <ul> <li>UGS 303 Sustaining a Planet (EVS Prescribed Work)</li> </ul> |  |  |
| Independent Inquiry Flag            | 1 course required. Typically fulfilled by:                            |  |  |
|                                     | EVS 371 (EVS Prescribed Work)   |  |  |

# Degree Totals, EVS and Jackson School of Geosciences

| 126 hours total       |  |
|-----------------------|--|
| 60 hours in residence |  |

#### **EVS-BIOLOGY TRACK**

#### Major Requirements, EVS-Biology Track

26 hours of coursework, including at least 15 upper-division hours of approved coursework in Biology and the Environment as follows:

|                               | <u>1 course required. Options:</u>                                       |  |
|-------------------------------|--|--|
| Statistics                    | SDS 328M (Biostatistics), <b>OR</b>                                      |  |
|                               | <ul> <li>SDS 321 (Introduction to Probability and Statistics)</li> </ul> |  |
|                               | 2 courses required:  |  |
| Genetics and Evolution        | BIO 325 (Genetics), AND  |  |
|                               | BIO 370 (Evolution)  |  |
|                               | 1 course required. Options:  |  |
|                               | - BIO 351 (Economic Botany)  |  |
| Conservation                  | - BIO 359 (Global Environmental Change)                                  |  |
| Conservation                  | - BIO 375 (Conservation Biology)   |  |
|                               | <ul> <li>MNS 352 (Topic: Concepts in Conservation Biology)</li> </ul>    |  |
|                               | - MNS 353 (Topic: Fisheries Ecology)                                     |  |
| Taxon-Based Diversity         | 1 course/pair required. See EVS Program Office for approved course list. |  |
| Physiology, Neurobiology, and | 1 course/pair required. See EVS Program Office for approved course list. |  |
| Behavior                      | 1 course/pair required. See LVS Program Office for approved course list. |  |

# Additional Prescribed Coursework, College of Natural Sciences

|                          | 1-2 courses required, depending on sequence. Options:  |
|--------------------------|--|
|                          | <ul> <li>Second-semester proficiency in a foreign language, OR</li> </ul>                    |
| Foreign Language/Culture | Two foreign culture courses in the same category, <b>OR</b>                                  |
|                          | <ul> <li>Combination of foreign language and foreign culture in the same category</li> </ul> |
|                          | See EVS Program Office for approved course lists.  |
|                          |  |

# Flag Requirements, College of Natural Sciences

| Writing Flags                       | 2 courses required, at least one must be upper-division. Typically fulfilled by: |  |
|-------------------------------------|--|--|
|                                     | EVS 121 (EVS Prescribed Work)  |  |
|                                     | BIO 373L (Ecology Field Lab)   |  |
| Global Cultures Flag                | <u>1 course required.</u>  |  |
| Global Cultures Flag                |  |  |
| Cultural Diversity in the U.S. Flag | <u>1 course required.</u>  |  |
| Quantitative Reasoning Flag         | 1 course required. Typically fulfilled by:                                       |  |
|                                     | Math or science course taken at UT for the EVS degree                            |  |
| Ethios and Londonship Flor          | 1 course required. Typically fulfilled by:                                       |  |
| Ethics and Leadership Flag          | <ul> <li>UGS 303 Sustaining a Planet (EVS Prescribed Work)</li> </ul>            |  |
| Independent in suins Flore          | 1 course required. Typically fulfilled by:                                       |  |
| Independent Inquiry Flag            | EVS 371 (EVS Prescribed Work)  |  |

#### Degree Totals, EVS and College of Natural Sciences

| 126 hours total       |  |  |
|-----------------------|--|--|
| 60 hours in residence |  |  |