

# Bachelor of Science in Environmental Science

## About This Program

Bachelor of Science in Environmental Science emphasizes interdisciplinary training related to environmental sciences and is designed for students who plan to enter the profession or go to graduate school.

## Competencies

1. Upon graduation, students will be able to identify, formulate, and solve problems in environmental sciences
2. Upon graduation, students will be able to identify, formulate, and solve problems in core sciences including mathematics/statistics, biology, chemistry, and physics
3. Upon graduation, students will be able to have competencies for field work that refers to the analytical and measurement skills, knowledge including uncertainties in observations, and attitudes to successfully participate in a practical, on-location learning experience

## Curriculum

### Foundations

General Core Requirements (<https://catalog.uta.edu/academicregulations/degree requirements/generalcore requirements/>)

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Students must complete specific courses in certain core areas.

For Communication select:

|                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| ENGL 1301<br>& ENGL 1302 | RHETORIC AND COMPOSITION I<br>and RHETORIC AND COMPOSITION II |
|--------------------------|---------------------------------------------------------------|

For Life & Physical Science select:

|                           |                                                            |
|---------------------------|------------------------------------------------------------|
| PHYS 1443<br>or PHYS 1441 | GENERAL TECHNICAL PHYSICS I<br>GENERAL COLLEGE PHYSICS I   |
| PHYS 1444<br>or PHYS 1442 | GENERAL TECHNICAL PHYSICS II<br>GENERAL COLLEGE PHYSICS II |

For Mathematics select:

|           |             |
|-----------|-------------|
| MATH 1426 | CALCULUS I  |
| MATH 2425 | CALCULUS II |

For US History select:

|           |                                               |
|-----------|-----------------------------------------------|
| HIST 1301 | HISTORY OF THE UNITED STATES TO 1865          |
| HIST 1302 | HISTORY OF THE UNITED STATES, 1865 TO PRESENT |

### EES Foundations

Additional hours required in core.

4

|           |                 |   |
|-----------|-----------------|---|
| UNIV 1131 | STUDENT SUCCESS | 1 |
|-----------|-----------------|---|

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Computer Competence - pass Computer Skills Placement test or any computer-related course such as:

|           |                                              |
|-----------|----------------------------------------------|
| GEOL 4330 | UNDERSTANDING GEOGRAPHIC INFORMATION SYSTEMS |
|-----------|----------------------------------------------|

### EES Specialization

|                                           |                                                                                      |   |
|-------------------------------------------|--------------------------------------------------------------------------------------|---|
| ENVR 3454                                 | STATISTICS FOR EARTH AND ENVIRONMENTAL SCIENTISTS                                    | 4 |
| ENVR 1301                                 | INTRODUCTION TO ENVIRONMENTAL SCIENCE                                                | 3 |
| ENVR 1330<br>or GEOL 1340                 | GLOBAL WARMING<br>WEATHER AND CLIMATE                                                | 3 |
| ENVR 2314                                 | THE GLOBAL ENVIRONMENT AND HUMAN HEALTH                                              | 3 |
| ENVR 3317<br>or ENVR 4325                 | ENVIRONMENTAL HYDROLOGY<br>TRACER HYDROLOGY                                          | 3 |
| ENVR 3387                                 | ENVIRONMENTAL SCIENCE FIELD METHODS                                                  | 3 |
| ENVR 4303                                 | TOPICS IN SUSTAINABILITY                                                             | 3 |
| ENVR 4308                                 | ENVIRONMENTAL GEOCHEMISTRY                                                           | 3 |
| ENVR 4313                                 | ENVIRONMENTAL REGULATION OF CHEMICAL HAZARDS                                         | 3 |
| GEOL 4331<br>or GEOL 4332<br>or GEOL 4333 | ANALYSIS OF SPATIAL DATA<br>GLOBAL POSITIONING SYSTEM<br>REMOTE SENSING FUNDAMENTALS | 3 |

|              |                                                          |   |
|--------------|----------------------------------------------------------|---|
| or GEOL 4334 | GEOGRAPHIC DATA ANALYSIS                                 |   |
| GEOL 4405    | METEOROLOGY AND CLIMATOLOGY                              | 4 |
| or GEOL 4465 | PHYSICAL OCEANOGRAPHY AND LIMNOLOGY                      |   |
| or GEOL 4425 | PALEOCLIMATE & CLIMATE CHANGE                            |   |
| BIOL 1441    | BIOLOGY I FOR SCIENCE MAJORS: CELL AND MOLECULAR BIOLOGY | 4 |
| BIOL 1442    | BIOLOGY II FOR SCIENCE MAJORS: ECOLOGY AND EVOLUTION     | 4 |
| BIOL 3356    | ENVIRONMENTAL SYSTEMS, BIOLOGICAL ASPECTS                | 3 |
| or BIOL 3355 | TOXICOLOGY                                               |   |
| CHEM 1441    | GENERAL CHEMISTRY I                                      | 4 |
| CHEM 1442    | GENERAL CHEMISTRY II                                     | 4 |

**Electives**

|                                                                                                                            |    |
|----------------------------------------------------------------------------------------------------------------------------|----|
| Select ENVR/GEOL/DATA/CHEM/BIOL coursework sufficient to complete 120 hours with at least 36 hours at the 3000/4000 level. | 19 |
|----------------------------------------------------------------------------------------------------------------------------|----|

|                    |            |
|--------------------|------------|
| <b>Total Hours</b> | <b>120</b> |
|--------------------|------------|

**SUGGESTED COURSE SEQUENCE**

Details of a personal course sequence should be made with the guidance of the Earth and Environmental Sciences undergraduate advisor, particularly since many GEOL courses are not offered every semester. Biology minors should consult with the Earth and Environmental Sciences undergraduate advisor for minor requirements, and Chemistry minors should consult with the Chemistry and Biochemistry undergraduate advisor for minor requirements.

**First Year**

|  | First Semester | Hours | Second Semester | Hours |
|--|----------------|-------|-----------------|-------|
|  | UNIV 1131      |       | 1 BIOL 1442     | 4     |
|  | MATH 1426      | 4     | ENGL 1302       | 3     |
|  | ENGL 1301      | 3     | ENVR 1330       | 3     |
|  | BIOL 1441      | 4     | MATH 2425       | 4     |
|  | ENVR 1301      | 3     |                 |       |
|  | <b>15</b>      |       | <b>14</b>       |       |

**Second Year**

|  | First Semester             | Hours | Second Semester   | Hours |
|--|----------------------------|-------|-------------------|-------|
|  | HIST 1301                  |       | 3 CHEM 1442       | 4     |
|  | CHEM 1441                  | 4     | ENVR 2314         | 3     |
|  | PHYS 1441 or 1443          | 4     | HIST 1302         | 3     |
|  | Social/Behavioral Science* | 3     | PHYS 1442 or 1444 | 4     |
|  | <b>14</b>                  |       | <b>14</b>         |       |

**Third Year**

| Summer Session | Hours    | First Semester    | Hours     | Second Semester                  | Hours     |
|----------------|----------|-------------------|-----------|----------------------------------|-----------|
| GEOL 3387      | 3        | ENVR 3317 or 4325 |           | 3 POLS 2312                      | 3         |
|                |          | ENVR 4313         |           | 3 GEOL 4331, 4332, 4333, or 4334 | 3         |
|                |          | ENVR 4330         |           | 3 BIOL 3356 or 3355              | 3         |
|                |          | GEOL 3454         | 4         | ENVR 4308                        | 3         |
|                |          | POLS 2311         | 3         | Creative Arts*                   | 3         |
|                | <b>3</b> |                   | <b>16</b> |                                  | <b>15</b> |

**Fourth Year**

|  | First Semester                     | Hours | Second Semester                    | Hours |
|--|------------------------------------|-------|------------------------------------|-------|
|  | GEOL 4405, 4465, or 4425           |       | 4 ENVR 4303                        | 3     |
|  | ENVR/GEOL/DATA/BIOL/CHEM Electives | 8     | ENVR 3457                          | 4     |
|  | Language, Philosophy, and Culture* | 3     | Foundational Component Area*       | 3     |
|  |                                    |       | ENVR/GEOL/DATA/CHEM/BIOL Electives | 4     |
|  | <b>15</b>                          |       | <b>14</b>                          |       |

**Total Hours: 120**

\* See [General Core Requirements \(https://catalog.uta.edu/archives/2025-2026/academicregulations/degree/requirements/generalcorerequirements/\)](https://catalog.uta.edu/archives/2025-2026/academicregulations/degree/requirements/generalcorerequirements/) for approved courses.

\*\* Actual number of courses/hours and course sequence determined by appropriate department.

## Advising Resources

First time in college students should plan to speak to a program advisor when starting their second year. or have an academic advising hold. Transfer students should contact program advising when enrolled or have an academic advising hold.

**Location:**

SH 328C

**Email:**

kaycee.nikses@uta.edu

**Phone:**

817-272-9686

**Web:**

Schedule an appointment (<https://outlook.office365.com/book/PHYSGEOLEESADVISING@mavs.uta.edu/>)