

## EARTH SCIENCE EDUCATION PROGRAM GUIDELINES

## BACHELOR OF SCIENCE (GEOGR2 BS)

These guidelines summarize the requirements for a Bachelor of Science and partial completion of Connecticut certification requirements in earth science education (4-12) for students following the 2026-2027 requirements.

DEGREE REQUIREMENTS

1. Complete the COMMON CURRICULUM REQUIREMENTS listed in the Academic Regulations of the University of Connecticut Undergraduate Catalog 2025-2026, which include **Topic of Inquiry (TOI) Requirements**: At least one course (3 credits) in each of the 6 different TOIs; 6 different subject areas; one laboratory science (TOI-6L); minimum of 21 TOI credits; TOI Focus area (3 courses in 1 TOI) or Theme (3 pre-determined courses); and meet **Competency Requirements**: two W courses, two Q courses, and second language through elementary level 2. In addition to the Common Curriculum requirements, students must take a course in U.S. History (HIST 1501 or 1502) and PSYC 1100.
2. Complete a SUBJECT AREA MAJOR in Earth Science consisting of a minimum of thirty-six (36) credits in natural sciences courses at the 2000's level or above. This includes a minimum of twenty-four (24) credits of 2000's level or above courses completed in the earth sciences and closely related subject areas. Up to twelve (12) credits may be completed in related areas. Six (6) credits taken at the 1000's level may be included with permission of the science education advisor.

Students wishing to specialize in the earth sciences are advised initially to major in geology or physical geography and in addition, to select appropriate courses in meteorology, astronomy, and oceanography.

3. Complete the following PROFESSIONAL EDUCATION REQUIREMENTS:

|  |           |
|--|-----------|
| EDCI 3100/W – Multicultural Education, Equity and Social Justice   | 3 credits |
| EPSY 3010 – Educational Psychology                                 | 3 credits |
| EGEN 3100 – Seminar/Clinic: The Student as Learner                 | 3 credits |
| EPSY 3110 – Exceptionality   | 2 credits |
| EDCI 3213 – Introduction to Secondary Methods and Clinic - Science | 3 credits |
| EDCI 4010 – Teaching Reading and Writing in the Content Areas      | 2 credits |
| EDCI 4210W – Instruction and Curriculum in the Secondary School    | 3 credits |
| EPSY 3125 – Classroom and Behavior Management                      | 3 credits |
| EGEN 4100 – Seminar/Clinic: Methods of Teaching                    | 3 credits |
| EPSY 4010 – Assessment of Learning                                 | 2 credits |
| EDCI 4250 – Directed Student Teaching                              | 9 credits |
| EGEN 4110 – Seminar/Clinic: Analysis of Teaching                   | 3 credits |

Students must earn at least 120 credits.

## MASTER OF ARTS IN CURRICULUM AND INSTRUCTION

To earn the University of Connecticut's institutional recommendation for teacher certification, students must additionally successfully complete the requirements for the Master of Arts in Curriculum and Instruction including a minimum of thirty (30) credits (two full-time semesters) of graduate level course work. Requirements are anticipated to include at least:

Content Pedagogy: EDCI 5500 – Teaching Science in the Middle & Secondary School (3 credits)

Curriculum Electives and/or Graduate Liberal Arts: (6 credits)

Language and Cultural Diversity in Education: (3 credits): *Choose one*: EDCI 5006 – Comparative and International Education, EDCI 5715 – Bilingualism and Second Language Acquisition, EDCI 5740 – Latinos and U.S. Education, EDCI 5742 – Sheltered English Instruction for English Language Learners, EDCI 5750 – Language Diversity and Literacy, EDCI 5875 – Multicultural Education, EDCI 5885 – Introduction to Critical Pedagogy, EDCI 5890 – Educational Linguistics, GERM/ALDS/CLCS 5324 – Teaching for Intercultural Citizenship & Human Rights, GERM/ALDS/CLCS 5325 – Teaching for Intercultural Citizenship and Human Rights II

Leadership: EDLR 5015 – Teacher Leadership and Organizations (3 credits)

Practicum: EDCI 5092 (3 credits fall) and EDCI 5093 (4 credits spring)

Seminar: EDCI 5094 (3 credits fall) and EDCI 5095 (3 credits spring)

Research: EPSY 5195 (2 credits fall)

Technology: EPSY 5221 – Wise Integration of Technology into Teaching and Learning Environments (1 credit)

## EARTH SCIENCE EDUCATION

### SAMPLE SEMESTER SEQUENCE

#### SEMESTER 1

|  |   |
|--|---|
| BIOL 1102 – Foundations of Bio. (Also fulfills TOI-6L) | 4 |
| CHEM 1127Q – General Chemistry                         | 4 |
| HIST 1501 or 1502 (Also fulfills TOI-5) – US History   | 3 |
| ENGL 1007 or 1010 or 1011 or 2011                      | 4 |

#### SUMMER SESSION

|           |   |
|-----------|---|
| *LANGUAGE | 8 |
|-----------|---|

#### SEMESTER 3

|  |   |
|--|---|
| PHYS 1201Q – General Physics                     | 4 |
| PHYS 1025Q – Introductory Astronomy with Lab     | 4 |
| PSYC 1100 (Also fulfills TOI-6) – Psychology     | 3 |
| TOI-1 Creativity: Design, Expression, Innovation | 3 |
| TOI-2 Cultural Dimensions of Human Experiences   | 3 |

#### SEMESTER 5

|   |   |
|---|---|
| EPSY 3110 – Exceptionality (fall or spring junior year) | 2 |
| EDCI 3100/W – Multicultural Education, Equity & SJ      | 3 |
| EGEN 3100 – Seminar/Clinic                              | 3 |
| ERTH 3020 – Earth Surface Processes                     | 3 |
| ERTH 3030 – Earth Structure                             | 3 |
| NRE 3145 – Meteorology                                  | 3 |

#### SEMESTER 7

|  |   |
|--|---|
| EDCI 4210W – Instruc. & Curric. in Secondary Schools | 3 |
| EGEN 4100 – Seminar/Clinic                           | 3 |
| EPSY 3125 – Classroom and Behavior Management        | 3 |
| GEOG 3510 – Cartographic Techniques                  | 4 |
| MARN 4060 – Descriptive Physical Oceanography        | 3 |
| Subject Area Major (PHIL 2212, suggested)            | 3 |

\*Required of all students not meeting the University requirements of three years of a single foreign language in high school.

\*\*Students should take EPSY 3010 prior to semester 5, if possible, but no later than semester 6. The course is available fall, spring, summer and online.

#### SEMESTER 9 (Master's)

|   |     |
|---|-----|
| EDCI 5092 - Practicum                         | 3   |
| EDCI 5094 – Seminar                           | 3   |
| EPSY 5195 – Research course                   | 2   |
| EPSY 5221 – Wise Technology (either semester) | 1   |
| Diversity course (either semester)            | 3   |
| EDLR 5015 – Leadership (either semester)      | 3   |
| Elective                                      | 3-6 |

#### SEMESTER 2

|   |        |
|---|--------|
| ERTH 1050 – Earth and Life through Time with Laboratory | 4      |
| CHEM 1128Q – General Chemistry                          | 4      |
| MATH pre-calculus or calculus                           | 3 or 4 |
| TOI-4 Environmental Literacy                            | 3      |

#### SEMESTER 4

|   |   |
|---|---|
| PHYS 1202Q – General Physics                | 4 |
| ERTH 3010 – Earth History and Global Change | 3 |
| Subject area major (2000-level or above)    | 3 |
| TOI-3 Diversity, Equity and Social Justice  | 3 |
| **EPSY 3010 – Educational Psychology        | 3 |

#### SEMESTER 6

|  |   |
|--|---|
| EPSY 3110 – Exceptionality (fall or spring junior year)      | 2 |
| EDCI 3213 – Intro. to Secondary Methods and Clinic - Science | 3 |
| EDCI 4010 – Teaching Reading/Writing in the Content Areas    | 2 |
| ERTH 3040 – Earth Materials                                  | 4 |
| Subject Area Major (2000-level or above)                     | 3 |
| TOI Focus Area or Theme                                      | 3 |

#### SEMESTER 8

|                                       |   |
|---------------------------------------|---|
| EPSY 4010 – Assessment of Learning    | 2 |
| EDCI 4250 – Directed Student Teaching | 9 |
| EGEN 4110 – Seminar/Clinic            | 3 |

#### SEMESTER 10 (Master's)

|  |     |
|--|-----|
| EDCI 5093 – Practicum                                | 4   |
| EDCI 5095 – Seminar                                  | 3   |
| EPSY 5221 – Wise Technology (either semester)        | 1   |
| Diversity course (either semester)                   | 3   |
| EDLR 5015 – Leadership (either semester)             | 3   |
| Elective   | 3-6 |
| EDCI 5500 – Teaching Science in Middle & High School | 3   |