

**PROGRAM OVERVIEW**

The secondary science program ensures that you will develop deep content knowledge across a number of disciplines important to become a successful science teacher with courses in physics, biology, chemistry, and geology. You will also be prepared with the methods and foundations coursework that will make you a highly effective, innovative, and compassionate secondary science teacher skilled in improving student performance and reaching the needs of today's diverse learners in a variety of school settings. You will have the skills to be a teacher leader. CU Denver graduates often go on to acquire positions in educational leadership as their careers progress.

**ACADEMIC ADVISING**

The School of Education & Human Development (SEHD) requires all students to meet with their Academic Advisor several times a year to develop and learn more about their own individualized plan of study.

303-315-6300

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[www.ucdenver.edu/education](http://www.ucdenver.edu/education)

**GENERAL GRADUATION REQUIREMENTS & POLICIES**

To receive a bachelor's degree from the University of Colorado Denver, students must satisfy all of the requirements below, in addition to completing a Major and fulfilling all of their School or College requirements.

1. A minimum of 120 credit hours is required to graduate from CU Denver with a bachelor's level degree.
2. A minimum 2.000 cumulative GPA is required for all University of Colorado coursework.
3. Satisfactory completion of the CU Denver Core Curriculum.

In addition to the general university graduation requirements listed above, all SEHD students are required to complete the following minimum general graduation requirements:

1. Students must earn a final grade of at least a C (2.0) in major courses and a B- (2.7) or above in designated major courses and Professional Year Residency courses within the major. These courses/requirement must be repeated if the student fails to earn the grade required.
2. Students must complete required classroom-based field experiences.
3. Students must complete all program assessments and professional milestones as outlined in the Student Handbook.
4. Students must complete all requirements associated with their SEHD major.

**PROGRAM REQUIREMENTS & POLICIES**

**Students are responsible for meeting with the academic advisor in the School of Education & Human Development to confirm major requirements.**

Students completing the Education and Human Development BA degree in Secondary Science (7-12 Licensure) are required to complete the following minimum program requirements:

1. Students must complete a minimum total of 126 semester hours for the EDHD Secondary Science Education Track.
2. Application to the last year of the program, the Professional Year Residency is required. After successfully completing all other Core, major, and elective courses, all students must apply for admission into the Professional Year. Requirements for admission include a 3.0 GPA, positive letters of recommendation, successful evaluations of earlier clinical experiences, and a successful interview. (Students with a lower GPA may be considered under certain conditions. Please see SEHD website.)
3. A minimum of C- is required for all content courses.
4. A minimum GPA of 2.0, grade of C or better, is required for all major courses applying to EDHD – Secondary Science Education requirements unless otherwise specified.
5. Students must complete and maintain a 3.0 minimum grade point average in Professional Year coursework to complete licensure requirements. Please see an advisor for more information on this requirement.
6. Transfer courses must be approved by faculty and/or advisor to apply to the major.

**Legend for Program Requirements on next page:**

† **Education Licensure Course:** requires minimum grade of B- or higher

‡ **Content Course:** requires minimum grade of C- or higher

§ **Clinical Field Experience Block:** All courses in a clinical field experience block must be taken together, in the same semester

Field experience paperwork deadlines: Fall placement = 4/1 Priority deadline; 4/15 Final deadline. Spring placement = 11/1 Priority deadline; 11/15 Final deadline

|| **Professional Year:** Admission to Professional Year required; Requirements for admission to Professional Year include:

- A minimum GPA of 3.0 in major coursework
- Successful completion of all other coursework (including Core, major, content, and elective requirements)
- Successful completion of the application and interview process
- Professional Year application deadlines: Fall start = 2/15 deadline. Spring start = 10/1 deadline

| Courses  | Credits        | Notes   |
|--|----------------|---|
| * Course prerequisites change regularly. Students are responsible for consulting advisors and the class schedule in the student portal for prerequisite information. * |                |   |
| <b>CU Denver Core Curriculum Requirements</b>  | <b>34 - 37</b> | <a href="#">CU Denver Core Curriculum Requirements</a>  |
| <b>EDHD – Secondary Science Education Major Requirements</b>   | <b>29</b>      |   |
| CLDE 2000 Foundations of Culturally & Linguistically Diverse Edu   | 3              | † Education Licensure Course  |
| Development Course: HDFR 1010 or HDFR 2110 or HDFR 3050  | 3              | Choose one course   |
| SCED 4340: Equity & Culture in Science Education: Local/Global   | 2              |   |
| CLDE 4020 Responsive Classroom Communities   | 3              | *Prerequisites: EDFN 4010, 40+ credits; †Education Licensure Course                                     |
| EDFN 1000 or LCRT 2000 or LCRT 3815  | 3              | Choose one course   |
| <b>Clinical Field Experience: Community-Based</b>  | <b>3</b>       | § Clinical Field Experience   |
| EDHD 1930 Community Based Field Experience & Seminar   | 3              | § Clinical Field Experience   |
| <b>Clinical Field Experience Block: Learning &amp; Development</b>   | <b>6</b>       | *Prerequisites: EDHD 1930; § Clinical Field Experience Block  |
| EDHD 2930 Learning & Development Field Experience & Seminar  | 3              | † Education Licensure Course; § Clinical Field Experience Block   |
| EDFN 4010 Social Foundations & Cultural Diversity in Urban Education   | 3              | † Education Licensure Course; § Clinical Field Experience Block<br>*Prerequisite: 27+ credits completed |
| <b>Clinical Field Experience Block: Diverse Learners</b>   | <b>6</b>       | *Prerequisites: EDHD 2930; § Clinical Field Experience Block  |
| EDHD 3930 Diverse Learners Field Experience & Seminar  | 3              | † Education Licensure Course; § Clinical Field Experience Block   |
| SPED 4030 Understanding (dis)Ability in Contemporary Classrooms  | 3              | † Education Licensure Course; § Clinical Field Experience Block   |
| <b>Secondary Science Content Course Requirements</b>   | <b>27</b>      |   |
| MATH 1110 College Algebra (or higher)  | 3              | Course can fulfill Core Math; ‡ Content Course  |
| BIOL 2021 General Biology I  | 3              | ‡ Content Course  |
| BIOL 2010 General Biology II   | 3              | *Prerequisite: BIOL 2021; ‡ Content Course  |
| CHEM 2031 General Chemistry I  | 3              | ‡ Content Course  |
| CHEM 2010 General Chemistry II   | 3              | *Prerequisite: CHEM 2031; ‡ Content Course  |
| PHYS 2010 College Physics I or PHYS 2311 General Physics I   | 4              | *Check individual courses for prerequisites; ‡ Content Course   |
| PHYS 2020 College Physics II or PHYS 2331 General Physics II   | 4              | *Check individual courses for prerequisites; ‡ Content Course   |
| GEOL 1073 Physical Geology: Surface Processes  | 3              | *Co-requisite: GEOL 1074; ‡ Content Course  |
| GEOL 1074 Physical Geology: Surface Processes Laboratory   | 1              | *Co-requisite: GEOL 1073; ‡ Content Course  |
| <b>Track Requirements</b>  | <b>8 - 11</b>  | Select a track and take all required courses for that track.  |
| <b>Biology Track</b>   | <b>11</b>      |   |
| BIOL 2021 General Biology Laboratory I   | 1              | ‡ Content Course  |
| BIOL 2011 General Biology Laboratory II  | 1              | ‡ Content Course  |
| CHEM 2038 General Chemistry Laboratory I   | 1              | *Co-requisite: CHEM 2031; ‡ Content Course  |
| CHEM 2068 General Chemistry Laboratory II  | 2              | *Prerequisite: CHEM 2038; co-req: CHEM 2010; ‡ Content Course   |
| Two additional upper-division courses in BIOL (6 credits minimum)  | 6              | *Check individual courses for prerequisites; ‡ Content Courses  |
| <b>Chemistry Track</b>   | <b>9</b>       |   |
| CHEM 2038 General Chemistry Laboratory I   | 1              | *Co-requisite: CHEM 2031; ‡ Content Course  |
| CHEM 2068 General Chemistry Laboratory II  | 2              | *Prerequisite: CHEM 2038; co-req: CHEM 2010; ‡ Content Course   |
| Two additional upper-division courses in CHEM (6 credits minimum)  | 6              | *Check individual courses for prerequisites; ‡ Content Courses  |
| <b>Environmental Sciences/Geology Track</b>  | <b>8 - 9</b>   |   |
| BIOL 2021 Gen Biology Lab I or CHEM 2038 Gen Chemistry Lab I   | 1              | *Check individual courses for prerequisites; ‡ Content Course   |
| BIOL 2011 Gen Biology Lab II or CHEM 2068 Gen Chemistry Lab II   | 1 – 2          | *Check individual courses for prerequisites; ‡ Content Course   |
| Two additional upper-division courses in ENVS or GEOL (6 credits minimum)  | 6              | *Check individual courses for prerequisites; ‡ Content Courses  |
| <b>Physics Track</b>   | <b>8</b>       |   |
| PHYS 2321 Intro Experimental Phys Lab I  | 1              | *Check individual courses for prerequisites; ‡ Content Course   |
| PHYS 2341 Intro Experimental Phys Lab II   | 1              | *Check individual courses for prerequisites; ‡ Content Course   |
| Two additional upper-division courses in PHYS (6 credits minimum)  | 6              | *Check individual courses for prerequisites; ‡ Content Courses  |
| <b>Estimated General Electives</b>   | <b>0 - 14</b>  | General Elective credits will vary; consult with advisor  |
| <b>Professional Year Courses</b>   | <b>28</b>      | Professional Year (separate admission required; see note below)   |
| LCRT 4100 Secondary Literacy Instruction and Assessment  | 3              | † Education Licensure Course;    Professional Year  |
| SPED 4400 Universal Design for Learning (UDL)  | 3              | † Education Licensure Course;    Professional Year  |
| STME 4020 Learning and Assessment in STEM: Embracing Design Thinking   | 3              | † Education Licensure Course;    Professional Year  |
| STME 4030 Expl Approaches to STEM Educ: Making Student Learning Visible  | 3              | † Education Licensure Course;    Professional Year  |
| UEDU 4040 Planning for Learning  | 3              | † Education Licensure Course;    Professional Year  |
| UEDU 4050 Capstone: Planning, Learning & Assessment  | 3              | † Education Licensure Course;    Professional Year  |
| UEDU 4931 Internship & Learning Community I  | 2              | † Education Licensure Course;    Professional Year  |
| UEDU 4932 Internship & Learning Community II   | 2              | † Education Licensure Course;    Professional Year  |
| UEDU 4933 Internship & Learning Community III  | 6              | † Education Licensure Course;    Professional Year  |
| <b>Total Program Hours:</b>  | <b>126</b>     |   |

**SAMPLE ACADEMIC PLAN OF STUDY**

The following academic plan is a *sample* pathway to completing degree requirements for this major. Students should tailor this plan based on previously completed college coursework (e.g., AP, IB, CLEP, dual/concurrent enrollment, and transfer credit), course availability, and individual preferences related to course load, schedules, or add-on programs such as minors or double-majors. Consult with an academic advisor to develop an individualized plan of study. **Students deviating from this plan must fulfill course prerequisites and must meet with the academic advisor in their department to confirm degree requirements.**

*\*Note: Many required courses are also available in summer semesters.*

|                           |  |     |
|---------------------------|--|-----|
| <b>Year One</b>           | <b>Fall</b>  | CRS |
|                           | ENGL 1020 – Core Composition I                         | 3   |
|                           | CLDE 2000 / SEHD Learning Community                    | 3   |
|                           | General Elective – UNIV 1110 / SEHD Learning Community | 1   |
|                           | MATH 1110 or higher (fulfills CU Denver Core Math)     | 4   |
|                           | CU Denver Core Humanities                              | 3   |
|                           | BIOL 2020 (fulfills CU Denver Core Nat/Phys Science)   | 3   |
|                           | BIOL 2021 (if required for track)                      | 0-1 |
| <b>Total Credit Hours</b> | <b>17-18</b>   |     |

|   |              |
|---|--------------|
| <b>Spring</b>                                     | CRS          |
| ENGL 2030 – Core Composition II                   | 3            |
| General Elective (CHEM 1000 recommended)          | 3            |
| BIOL 2010   | 3            |
| BIOL 2011 (if required for track)                 | 0-1          |
| EDFN 1000 or LCRT 2000 or LCRT 3815               | 3            |
| <b>Clinical Field Experience: Community-Based</b> |              |
| EDHD 1930   | 3            |
| <b>Total Credit Hours</b>                         | <b>15-16</b> |

|                           |                                    |     |
|---------------------------|------------------------------------|-----|
| <b>Year Two</b>           | <b>Fall</b>                        | CRS |
|                           | HDFR 1010 or 2110 or 2050          | 3   |
|                           | CHEM 2031                          | 3   |
|                           | CHEM 2038 (if required for track)  | 0-1 |
|                           | GEOL 1073                          | 3   |
|                           | GEOL 1074                          | 1   |
|                           | CU Denver Core Behavioral Sciences | 3   |
|                           | CU Denver Core Arts                | 3   |
| <b>Total Credit Hours</b> | <b>16-17</b>                       |     |

|  |              |
|--|--------------|
| <b>Spring</b>  | CRS          |
| General Elective   | 2            |
| CHEM 2010  | 3            |
| CHEM 2068 (if required for track)                                  | 0-2          |
| CU Denver Core International Perspectives                          | 3            |
| <b>Clinical Field Experience Block: Learning &amp; Development</b> |              |
| EDHD 2930  | 3            |
| EDFN 4010  | 3            |
| <b>Total Credit Hours</b>  | <b>14-16</b> |

|                           |  |     |
|---------------------------|--|-----|
| <b>Year Three</b>         | <b>Fall</b>  | CRS |
|                           | PHYS 2010 or PHYS 2311                                   | 4   |
|                           | PHYS 2321 (if required for track)                        | 0-1 |
|                           | CU Denver Core Social Sciences                           | 3   |
|                           | Upper-division science content course for track          | 3   |
|                           | <b>Clinical Field Experience Block: Diverse Learners</b> |     |
|                           | EDHD 3930  | 3   |
|                           | SPED 4030  | 3   |
| <b>Total Credit Hours</b> | <b>16-17</b>   |     |

|   |              |
|---|--------------|
| <b>Spring</b>                                   | CRS          |
| CLDE 4020                                       | 3            |
| CU Denver Core Cultural Diversity               | 3            |
| PHYS 2020 or PHYS 2331                          | 4            |
| PHYS 2341 (if required for track)               | 0-1          |
| Upper-division science content course for track | 3            |
| SCED 4340                                       | 3            |
| <b>Total Credit Hours</b>                       | <b>16-17</b> |

In first semester of year three, take the appropriate Praxis exam. Students *must* pass the Praxis prior to beginning their final semester.  
 In second semester of year three, apply for admission to Professional Year. Deadlines for Professional Year application are 2/15 for Fall start or 10/1 for Spring start.

|   |             |     |
|---|-------------|-----|
| <b>Year Four:<br/>Professional Year</b> | <b>Fall</b> | CRS |
|   | LCRT 4100   | 3   |
|   | SPED 4400   | 3   |
|   | STME 4020   | 3   |
|   | UEDU 4040   | 3   |
|   | UEDU 4931   | 2   |
|   | UEDU 4932   | 2   |
| <b>Total Credit Hours</b>               | <b>16</b>   |     |

|                           |           |
|---------------------------|-----------|
| <b>Spring</b>             | CRS       |
| UEDU 4050                 | 3         |
| STME 4030                 | 3         |
| UEDU 4933                 | 6         |
|                           |           |
|                           |           |
| <b>Total Credit Hours</b> | <b>12</b> |

After graduation, apply for a teaching license through the Colorado Department of Education.