Secondary Education - Science Education
Chemistry Track (B.S.)

College of Education and Human Performance
School of Teaching, Learning, and Leadership,
Education Building, Room: 209

http://education.ucf.edu/science/
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The Secondary Education B.S. - Science Education Chemistry program offers students the option of two tracks: Science Education - Chemistry Track and Science Education - Chemistry Lifelong Learning Track (non-certification). The Education Track is appropriate for students interested in opportunities for employment with formal, 6-12 schools that require certification. The Lifelong Learning Track is appropriate for students seeking opportunities for employment outside formal, K-12 schools that do not require certification.

Admission Requirements
- Complete the University General Education requirements or its equivalent, i.e. an AA degree from a Florida College System or State University System institution.
- Complete the EDF 2005 Introduction to Teaching Profession, EDF 2085 Introduction to Diversity for Educators and EME 2040 Introduction to Technology for Educators courses with a minimum letter grade of “C-” (1.75) or better.
- Meet the Gordon Rule Requirement.
- Meet Foreign Language Admission Requirement.
- Have a minimum 2.5 overall GPA
- Education Track: Pass all four parts of the General Knowledge Test (no alternatives or waivers are accepted). The Lifelong Learning Track is a non-certification program and does not require the General Knowledge Test.

Degree Requirements
- Students should see an advisor prior to registering for courses
- The courses designated in 1 (UCF General Education Program) and 2 (Education Common Program Prerequisites) should be completed prior to admission to the major and upper division education courses
- The Education Track is a state-approved, initial teacher preparation program designed in compliance with Florida Statutes and State Board of Education Rule 6A-5.066. Degree requirements are subject to change based on state mandates.

1. UCF General Education Program (GEP) (37 hrs)
- Note: Students are advised to take the preferred courses.

A: Communication Foundations (9 hrs)
- Required ENC 1101 Composition I 3 hrs
- Required ENC 1102 Composition II 3 hrs
- Prefer SPC 1608 Fundamentals of Oral Communication 3 hrs

B: Cultural & Historical Foundations (9 hrs)
- General Education Program elective from section B1 to meet Gordon Rule Requirement

Select 1:
- Prefer MUL 201 Enjoyment of Music or 3 hrs
- Prefer THE 2000 Theatre Survey or 3 hrs
- Prefer PHI 2010 Introduction to Philosophy 3 hrs
- General Education Program elective: Prefer a second course from GEP section B1

C: Mathematical Foundations (6 hrs)
- Required MAC 1144 College Trigonometry 3 hrs
- Prefer STA 2046C Principles of Statistics 3 hrs

D: Social Foundations (6 hrs)
- Prefer POS 2041 American National Government 3 hrs
- Prefer PSY 2012 General Psychology 3 hrs

E: Science Foundations (7 hrs)
- Required BSC 2010C Biology I 4 hrs
- Required PSC 1121 Physical Science 3 hrs

1 A grade of “C-” (1.75) or better is required.

2. Common Program Prerequisites (CPP) (15 hrs)
- See “Common Prerequisites” in the Transfer and Transitions Services section for more information.

- EDF 2005 Introduction to the Teaching Profession 3 hrs
- CHM 2045C Chemistry Fundamentals I 4 hrs
- CHM 2046 Chemistry Fundamentals II 3 hrs
- CHM 2046L Chemistry Fundamentals Laboratory 1 hr
- PHY 2053C College Physics I 4 hrs

3. Core Requirements: Basic Level (10 hrs)
- Education Track requires 10 semester hours
- Lifelong Learning Track requires 13 semester hours

Transfer Notes: Courses taken at Florida College System institutions may substitute for select courses in this section with the permission of the department.
- EDF 2085 Introduction to Diversity for Educators 3 hrs
- EME 2040 Introduction to Technology for Educators 3 hrs
- CHM 2045C Chemistry Fundamentals I CPP
- PSC 1121 Physical Science GEP
- PSC 1121L Physical Science Lab 1 hr
- BSC 2010C Biology I GEP
- MAC 1144 College Trigonometry GEP

Education Track
- EDF 2130 Child and Adolescent Development for Educators 3 hrs

1 In addition, a minimum of 6 hours with an international or diversity focus is required. The foreign language admission requirement may be used to meet this requirement.

Lifelong Learning Track
- 6 hrs
- MHS 2330 Career Planning 3 hrs

Select 1:
- EDF 2130 Child and Adolescent Development for Educators or 3 hrs
- EDP 2270 Adult Development & Learning 3 hrs

4. Core Requirements: Advanced Level (55 hrs)
- Education Track requires 58 semester hours
- Lifelong Learning Track requires 55 semester hours

Education Core Requirements (18 hrs)
- Education Track requires 18 semester hours of Education Core Requirements
- Lifelong Learning Track requires 21 semester hours of Education Core Requirements

- EDF 4467 Learning Theory and Assessment 3 hrs
- EDF 4603 Analysis and Application of Ethical, Legal, and Safety Issues in Schools 3 hrs
- EED 4410 Teaching Strategies and Classroom Management 3 hrs
- EEX 4242 Teaching Exceptional Students in Secondary Settings 3 hrs
- RED 4043 Content Reading in Kindergarten through Grade 12 3 hrs
- TSL 4080 Theory and Practice of Teaching ESOL Students in Schools 3 hrs

Lifelong Learning Track
- SCE 4361 Programs in Teaching Science 3 hrs

1 Prerequisite to Internship I

Education Track Specialization Requirements (21 hrs)
- CHM 2046 Chemistry Fundamentals II CPP
- CHM 2046L Chemistry Fundamentals Laboratory CPP
- PHY 2053C College Physics I CPP
- CHM 3120 Analytical Chemistry 3 hrs
- CHM 3120L Analytical Chemistry Laboratory 1 hr
- CHM 2211 Organic Chemistry I 3 hrs
- CHM 2211L Organic Chemistry Laboratory 2 hrs
- CHS 3501 Introduction to Forensic Science 3 hrs
- BCH 4053 Biochemistry I 3 hrs
- SCE 4361 Programs in Teaching Science 3 hrs

Prerequisite to Internship I
### UCF Degree Programs

#### Internship I Block 7 hrs
- Program Internship I Prerequisites: EDG 4410, TSL 4080, all Common Program Prerequisites, all Core Requirements: Basic Level, and at least 50% of all required chemistry courses must be completed prior to Internship I with a minimum grade of "C-" (1.75) or better. However, a minimum GPA of 2.5 is required in the professional specialization and overall for admission to Internship I.
- Passing score on the General Knowledge Test portion of the Florida Teacher Certification Examination (FTCE) is required before application to Internship I.
- Passing score on the Professional Education Test portion of the Florida Teacher Certification Examination (FTCE) is strongly recommended as soon as possible after completing the following courses: EDG 4410 Teaching Strategies and Classroom Management, EDF 4467 Learning Theory and Assessment, RED 4043 Content Reading Kindergarten through Grade 12, and TSL 4080 Theory and Practice of Teaching ESOL Students in Schools.
- Students must apply and be approved for Internship I. Deadline dates and applications are available through the Office of Clinical Experiences at [http://www.education.ucf.edu/clinicalexp/](http://www.education.ucf.edu/clinicalexp/)
- Must have a total of 48 or more hours of upper level instruction in a single foreign language. (This requirement results in a minimum 2.5 GPA in all courses within the major.
- In courses throughout the program, you must upload key assignments into your LiveText Dashboard. These key assignments are then assessed by faculty. The resulting data provides evidence of your demonstrated professional growth, reflection, and proficiency in all Florida Educator Accomplished Practices. All teacher education candidates, lifelong learning majors and early childhood and development and education majors (all ECDE tracks) are required to complete all LiveText requirements in order to be cleared for graduation. [http://livetext.education.ucf.edu/](http://livetext.education.ucf.edu/)

#### Internship II Block 12 hrs
- At least 80% of all required chemistry courses and all methods courses must be completed with a letter grade of "C-" (1.75) or better before registering for Internship II. However, a minimum GPA of 2.5 is required in the professional, specialization and overall for admission to Internship II.
- Passing scores on all sections [General Knowledge, Professional, and Subject Area (Chemistry 6-12)] of the Florida Teacher Certification Examination (FTCE) are required prior to entry into Internship II.
- Students must apply and be approved for Internship II. Deadline dates and applications are available through the Office of Clinical Experiences at [http://www.education.ucf.edu/clinicalexp/](http://www.education.ucf.edu/clinicalexp/)
- Satisfactory completion of Internship II requires the student to demonstrate proficiency in all Florida Educator Accomplished Practices in accordance with State Board of Education Rule 6A-5.066.
- Achieve a minimum 2.5 GPA in all courses within the major.
- In courses throughout the program, you must upload key assignments into your LiveText Dashboard. These key assignments are then assessed by faculty. The resulting data provides evidence of your demonstrated professional growth, reflection, and proficiency in all Florida Educator Accomplished Practices. All teacher education candidates, lifelong learning majors and early childhood and development and education majors (all ECDE tracks) are required to complete all LiveText requirements in order to be cleared for graduation. [http://livetext.education.ucf.edu/](http://livetext.education.ucf.edu/)

#### Lifelong Learning Track Specialization 34 hrs
- Select preferred specialization courses with advisor approval. A minimum of nine (9) hours must be taken in the content area. Substitutions are allowed with advisor approval.
- A grade of "C-" (1.75) or better is required.
- Must have a total of 48 or more hours of upper level courses to graduate.

#### Requirements

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHM 3120</td>
<td>Analytical Chemistry</td>
<td>3 hrs</td>
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<tr>
<td>CHM 3120L</td>
<td>Analytical Chemistry Laboratory</td>
<td>1 hr</td>
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<tr>
<td>CHM 2210</td>
<td>Organic Chemistry I</td>
<td>3 hrs</td>
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<td>CHM 2211</td>
<td>Organic Chemistry II</td>
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<tr>
<td>CHM 2211L</td>
<td>Organic Laboratory Techniques</td>
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<td>CHS 3501</td>
<td>Introduction to Forensic Science</td>
<td>3 hrs</td>
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<td>BCH 4053</td>
<td>Biochemistry I</td>
<td>3 hrs</td>
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<td>EDG 4941</td>
<td>Directed Field Experience</td>
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<td>EDG 4948</td>
<td>Service Learning</td>
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<td>DIG 3525</td>
<td>Digital Media Production I</td>
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<td>DIG 2000</td>
<td>Introduction to Digital Media</td>
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<td>DIG 2030</td>
<td>Digital Video Fundamentals</td>
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<td>DIG 2109</td>
<td>Digital Imaging Fundamentals</td>
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<td>DIG 2500</td>
<td>Fundamentals of Interactive Design</td>
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<td>DIG 3811</td>
<td>User-Centered Design</td>
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<td>DEP 2004</td>
<td>Developmental Psychology</td>
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<td>DEP 3202</td>
<td>Psychology of Exceptional Children</td>
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<td>DEP 3484</td>
<td>Psychology of Aging</td>
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<td>EXP 3604</td>
<td>Cognitive Psychology</td>
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<td>EXP 3250</td>
<td>Principles of Human Factors Psychology</td>
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<td>EAB 3703</td>
<td>Principles of Behavior Modification</td>
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<td>MAN 3025</td>
<td>Management of Organizations</td>
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<td>MAN 4101</td>
<td>Human Relations in Management</td>
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<td>MAR 3023</td>
<td>Marketing</td>
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<td>ECT 4184</td>
<td>Curriculum Development Techniques for Industry</td>
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<td>HFT 1000</td>
<td>Introduction to the Hospitality and Tourism Industry</td>
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<td>HFT 2750</td>
<td>The Event Industry</td>
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<td>HFT 3798</td>
<td>Fairs and Festivals</td>
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<td>HFT 4754</td>
<td>Exhibit and Trade Show Operations</td>
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<tr>
<td>SCE 4360</td>
<td>Science Instructional Analysis</td>
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#### 5. Restricted Electives
- None

#### 6. Capstone Requirements
- None

#### 7. Foreign Language Requirements
- None

### 8. Electives
- None

### 9. Additional Requirements
- None

### 10. Required Minors
- None

### 11. Departmental Exit Requirements
- None

### 12. University Minimum Exit Requirements
- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded
- 48 semester hours of upper division credit completed
- 30 of the last 39 hours of course work must be completed in residency at UCF.
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, and nine hours of Summer credit.

### Total Semester Hours Required
- 120

### Honors In Major
- None

### Related Programs
- None
Certificates
- None

Related Minors
- None

Advising Notes
- None

Transfer Notes
- None

Acceptable Substitutes for Transfer Courses
- None

Plan of Study (120 hrs)

Recommended Four Year Sequence of Courses

Freshman Year - Fall
- 13 hrs
  - GEP B1 Elective 3 hrs
  - ENC 1101 Composition I 3 hrs
  - PSC 1121 Physical Science 3 hrs
  - PSC 1121L Physical Science Lab 1 hr
  - PSY 2012 General Psychology 3 hrs

Freshman Year - Spring
- 12 hrs
  - ENC 1102 Composition II 3 hrs
  - MAC 1114C College Trigonometry 3 hrs
  - PHI 2010 Introduction to Philosophy 3 hrs

Freshman Year - Summer
- 6 hrs
  - STA 2014C Principles of Statistics 3 hrs

Select 1:
- MUL 2010 Enjoyment of Music or 3 hrs
- THE 2000 Theatre Survey or 3 hrs
- PHI 2010 Introduction to Philosophy 3 hrs

Sophomore Year - Fall
- 14 hrs
  - EDF 2005 Introduction to the Teaching Profession 3 hrs
  - BSC 2010C Biology I 4 hrs
  - CHM 2045C Chemistry Fundamentals I 4 hrs
  - SPC 1608 Fundamentals of Oral Communication 3 hrs

Sophomore Year - Spring
- 13 hrs
  - CHM 2046 Chemistry Fundamentals II 3 hrs
  - CHM 2046L Chemistry Fundamentals Laboratory 1 hr
  - EDF 2085 Introduction to Diversity for Educators 3 hrs
  - EME 2040 Introduction to Technology for Educators 3 hrs

Education Track
- 3 hrs
  - EDF 2130 Child and Adolescent Development for Educators 3 hrs

Lifelong Learning Track
- 3 hrs

Select 1:
- EDF 2130 Child and Adolescent Development for Educators 3 hrs
- EDP 2270 Adult Development & Learning 3 hrs

Sophomore Year - Summer
- 4 hrs
  - PHY 2053C College Physics I 4 hrs

Junior Year - Fall
- 16 hrs
  - EDF 4467 Learning Theory and Assessment 3 hrs
  - EDG 4410 Teaching Strategies and Classroom Management 3 hrs
  - EEX 4242 Teaching Exceptional Students in Secondary Settings 3 hrs

Education Track
- 7 hrs
  - CHM 2210 Organic Chemistry I and 3 hrs
  - CHM 2211L Organic Laboratory Techniques I and 2 hrs
  - CHS 3901 Introduction to Forensic Science 3 hrs

Lifelong Learning Track
- 8 hrs
  - MHS 2330 Career Planning and Choice Lifelong Learning Specialization courses 3 hrs

Junior Year - Summer
- 3 hrs
  - SCH 3405 Programs in Teaching Science 3 hrs

Senior Year - Fall
- 13 hrs
  - EDF 4603 Analysis and Application of Ethical, Legal, and Safety Issues in Schools 3 hrs

Education Track
- 10 hrs
  - SCH 4360 Science Instructional Analysis and 4 hrs
  - SCH 3940 Internship and 3 hrs
  - BCH 4053 Biochemistry I 3 hrs

Lifelong Learning Track
- 10 hrs
  - Choose Lifelong Learning Specialization courses 10 hrs

Senior Year - Spring
- 12 hrs

Education Track
- 12 hrs
  - SCH 4941 Internship and 9 hrs
  - ESE 4033C Critical Issues and Trends in Secondary Education 3 hrs

Lifelong Learning Track
- 12 hrs
  - Choose Lifelong Learning Specialization courses 12 hrs

Program Academic Learning Compacts

- Program Academic Learning Compacts (student learning outcomes) for undergraduate programs are located at: http://www.oelas.ucf.edu/alc/academic_learning_compacts.htm

Equipment Fees

- Part-Time Student: $12 per term
- Full-Time Student: $24 per term