

## UCF Degree Programs

### Forensic Science - Chemistry Track (B.S.)

College of Sciences

Department of Chemistry,

Physical Sciences Building, Room: 255

<http://chemistry.cos.ucf.edu/>

Email: [chemstaff@ucf.edu](mailto:chemstaff@ucf.edu)

Dr. Tamra Legron-Rodriguez, [tamra.legron-rodriguez@ucf.edu](mailto:tamra.legron-rodriguez@ucf.edu)  
Phone: 407-823-1167

Students completing the Forensic Science - Chemistry Track B.S. degree will also meet the requirements for ACS certification. This track is designed to allow students the flexibility to prepare for multiple careers in forensics through selection of restricted elective courses.

#### Admission Requirements

- None

#### Degree Requirements

- Students who change degree programs and select this major must adopt the most current catalog.
- Departmental Residency Requirement consists of at least 30 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Chemistry
- Co-op credit cannot be used in this major.
- Students should consult with a departmental advisor.
- Students must earn a "C" (2.0) or higher in each course and have a minimum 2.5 cumulative GPA in all courses in categories 2 (Common Program Prerequisites), 3 (Core Requirements: Basic Level), 4 (Core Requirements: Advanced Level), and 5 (Restricted Electives).
- All prerequisites of courses taught within the College of Sciences will be enforced.
- Courses designated in 2 (Common Program Prerequisites) are usually completed in the first 60 hours.

#### 1. UCF General Education Program (GEP) (39 hrs)

- Note: Certain courses must be selected in the GEP for this major, which brings the GEP hours above 36

#### A: Communication Foundations (9 hrs)

|          |           |   |       |
|----------|-----------|---|-------|
| Prefer   | SPC 1603C | Fundamentals of Technical Presentations | 3 hrs |
| Required | ENC 1101  | Composition I                           | 3 hrs |
| Required | ENC 1102  | Composition II                          | 3 hrs |

#### B: Cultural & Historical Foundations (9 hrs)

#### C: Mathematical Foundations (7 hrs)

|          |           |                                   |       |
|----------|-----------|-----------------------------------|-------|
| Required | MAC 2311C | Calculus with Analytic Geometry I | 4 hrs |
| Required | STA 2023  | Statistical Methods I             | 3 hrs |

#### D: Social Foundations (6 hrs)

#### E: Science Foundations (8 hrs)

|          |           |                                  |       |
|----------|-----------|----------------------------------|-------|
| Required | BSC 2010C | Biology I                        | 4 hrs |
| Required | PHY 2048C | General Physics Using Calculus I | 4 hrs |

#### 2. Common Program Prerequisites (CPP) (16 hrs)

- See "Common Prerequisites" in the Transfer and Transitions Services section for more information.
- |           |           |     |
|-----------|-----------|-----|
| BSC 2010C | Biology I | GEP |
|-----------|-----------|-----|

#### Select one of the following sequences of courses:

|           |                               |       |
|-----------|-------------------------------|-------|
| CHM 2045C | Chemistry Fundamentals I      | 4 hrs |
| or        |                               |       |
| CHM 2040  | Chemistry Fundamentals IA and | 3 hrs |
| CHM 2041  | Chemistry Fundamentals IB     | 3 hrs |

#### Take all of the following:

|           |                                    |       |
|-----------|------------------------------------|-------|
| CHM 2046  | Chemistry Fundamentals II          | 3 hrs |
| CHM 2046L | Chemistry Fundamentals Laboratory  | 1 hr  |
| MAC 2311C | Calculus with Analytic Geometry I  | GEP   |
| MAC 2312  | Calculus with Analytic Geometry II | 4 hrs |
| PHY 2048C | General Physics Using Calculus I   | GEP   |
| PHY 2049C | General Physics Using Calculus II  | 4 hrs |

#### 3. Core Requirements: Basic Level (15 hrs)

- All courses specifically identified in the preceding Common Program Prerequisites section of this catalog are also required in the Basic Core, and must be taken.

#### Basic Core: Required, satisfies the CPP

|           |                          |     |
|-----------|--------------------------|-----|
| CHM 2045C | Chemistry Fundamentals I | CPP |
|-----------|--------------------------|-----|

- or

|          |                               |     |
|----------|-------------------------------|-----|
| CHM 2040 | Chemistry Fundamentals IA and | CPP |
| CHM 2041 | Chemistry Fundamentals IB     | CPP |

- and

|           |  |         |
|-----------|--|---------|
| CHM 2046  | Chemistry Fundamentals II and          | CPP     |
| CHM 2046L | Chemistry Fundamentals Laboratory and  | CPP     |
| BSC 2010C | Biology I and                          | GEP/CPP |
| MAC 2311C | Calculus with Analytic Geometry I and  | GEP/CPP |
| MAC 2312  | Calculus with Analytic Geometry II and | CPP     |
| PHY 2048C | General Physics Using Calculus I and   | CPP     |
| PHY 2049C | General Physics Using Calculus II      | CPP     |

#### Basic Core: Additional Requirements 15 hrs

|           |                                     |       |
|-----------|-------------------------------------|-------|
| CHM 2210  | Organic Chemistry I and             | 3 hrs |
| CHM 2211  | Organic Chemistry II and            | 3 hrs |
| CHM 2211L | Organic Laboratory Techniques I and | 2 hrs |
| CHM 3120  | Analytical Chemistry and            | 3 hrs |
| CHM 3120L | Analytical Chemistry Laboratory and | 1 hr  |
| STA 2023  | Statistical Methods I and           | GEP   |
| PCB 3063  | Genetics                            | 3 hrs |

#### 4. Core Requirements: Advanced Level (32 hrs)

##### A. Forensic Science Core:

|           |  |       |
|-----------|--|-------|
| CHS 3501  | Introduction to Forensic Science           | 3 hrs |
| CHS 3505C | Forensic Microscopy                        | 4 hrs |
| CHS 3511C | Trace Evidence                             | 4 hrs |
| CHS 3530C | Forensic Analysis of Controlled Substances | 4 hrs |
| CHS 3533  | Forensic Biochemistry I                    | 2 hrs |
| CHS 3595  | Forensic Science in the Courtroom          | 3 hrs |
| CHS 4537  | Forensic Laboratory Quality Assurance      | 2 hrs |
| CHS 4591  | Forensic Science Internship                | 4 hrs |
| CHM 3422  | Applied Physical Chemistry                 | 3 hrs |
| BCH 4053  | Biochemistry I                             | 3 hrs |

##### B. Forensic Chemistry Track: 5 hrs

|           |  |       |
|-----------|--|-------|
| CHM 4130  | Advanced Analytical Laboratory Technique | 3 hrs |
| CHM 4130L | Advanced Analytical Chemistry Laboratory | 2 hrs |

#### 5. Restricted Electives (12 hrs)

##### Select from the following: 12 hrs

- Note: Substitutions require prior approval by the Forensic Science Program advisor.

|           |                                    |       |
|-----------|------------------------------------|-------|
| ANT 4521  | Forensic Anthropology              | 3 hrs |
| BCH 4054  | Biochemistry II                    | 3 hrs |
| CHM 3215L | Organic Laboratory Techniques II   | 2 hrs |
| CHM 4912  | Directed Independent Research      | 3 hrs |
| CHS 5504  | Topics in Forensic Science         | 3 hrs |
| PCB 3063L | Genetics Laboratory                | 1 hr  |
| PCB 3233  | Immunology                         | 3 hrs |
| PCB 3233L | Immunology Laboratory              | 1 hr  |
| CHS 3533L | Forensic Biochemistry I Laboratory | 1 hr  |
| CHS 4534C | Forensic Biochemistry II           | 3 hrs |
| STA 4163  | Statistical Methods II             | 3 hrs |
| ZOO 3733C | Human Anatomy                      | 4 hrs |

#### 6. Capstone Requirements

- None

#### 7. Foreign Language Requirements

##### Admissions

- Two years high school, or one year college language (or equivalent proficiency exam) prior to graduation.

##### Graduation

- None

##### 8. Electives

- Select primarily from upper level courses after consulting with a departmental advisor. Courses may be outside the department.

##### 9. Additional Requirements

- None

##### 10. Required Minors

- None

## UCF Degree Programs

### 11. Departmental Exit Requirements

- Earn a grade of "C" (2.0) or better in each course used to satisfy categories 2, 3, 4, and 5 of the degree requirements.
- Students must maintain a cumulative GPA of 2.5 in all courses taken to meet Common Program Prerequisites and Core Requirements: Basic Level, Core Requirements: Advanced Level and Restricted Electives.
- All attempts of courses taken that could meet major requirements are included in the GPA calculation. Additional courses that could meet requirements but are taken beyond the minimum required (e.g., additional restricted electives) and a "C" (2.0) or better is earned are also included in both GPA calculations.
- The last 30 credit hours of regularly scheduled courses that satisfy degree requirements must be taken in Residence at UCF.

### 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

- 124

### Honors In Major

- None

### Related Programs

- Chemistry
- Forensic Science - Biochemistry Track

### Certificates

- Behavioral Forensics
- Crime Scene Investigation

### Related Minors

- Chemistry

### Advising Notes

- None

### Transfer Notes

- Lower division courses do not substitute for upper division courses.
- Courses transferred from private and out-of-state schools must be evaluated for equivalency credit. The student must provide all supporting information.

### Acceptable Substitutes for Transfer Courses

- CHM 2045C: may use CHM X040 plus CHM X041.
- Calculus: Although other math courses may satisfy the CPP, the specified courses are required in the major and still must be taken.
- Physics: Although CPP requirements permit substitution by Organic Chemistry, all the specified courses are required for graduation and still must be taken.

### Plan of Study

- One of numerous possible plans of study. See program description for all requirements. Consult a departmental advisor for alternate, new or more appropriate selections.
- Before registering for Chemistry, take Chemistry Placement Test ~  
<http://knightsource.sdes.ucf.edu/placement>
- Before registering for Math, take Math Placement Test ~  
<http://utc.sdes.ucf.edu>
- This plan assumes you need to begin with the three semester chemistry sequence and calculus. Having to start at a lower math class will increase the hours taken.

### Freshman Year - Fall

|           |                                   |       |
|-----------|-----------------------------------|-------|
| CHM 2040  | Chemistry Fundamentals IA         | 3 hrs |
| CHS 3501  | Introduction to Forensic Science  | 3 hrs |
| MAC 2311C | Calculus with Analytic Geometry I | 4 hrs |
| ENC 1101  | Composition I                     | 3 hrs |

### Freshman Year - Spring

|          |                                    |       |
|----------|------------------------------------|-------|
| CHM 2041 | Chemistry Fundamentals IB          | 3 hrs |
| MAC 2312 | Calculus with Analytic Geometry II | 4 hrs |
| ENC 1102 | Composition II                     | 3 hrs |
| STA 2023 | Statistical Methods I              | 3 hrs |

### Freshman Year - Summer

|  |                                   |       |
|--|-----------------------------------|-------|
| CHM 2046   | Chemistry Fundamentals II         | 3 hrs |
| CHM 2046L  | Chemistry Fundamentals Laboratory | 1 hr  |
| Lab may be taken in a later term if seats are not available. |                                   |       |
| GEP  |                                   | 3 hrs |

### Sophomore Year - Fall

|                     |                                  |       |
|---------------------|----------------------------------|-------|
| CHM 2210            | Organic Chemistry I              | 3 hrs |
| BSC 2010C           | Biology I                        | 4 hrs |
| PHY 2048C           | General Physics Using Calculus I | 4 hrs |
| Restricted Elective |                                  | 3 hrs |

### Sophomore Year - Spring

|           |   |       |
|-----------|---|-------|
| CHM 2211  | Organic Chemistry II                    | 3 hrs |
| PHY 2049C | General Physics Using Calculus II       | 4 hrs |
| PCB 3063  | Genetics                                | 3 hrs |
| SPC 1603C | Fundamentals of Technical Presentations | 3 hrs |

### Sophomore Year - Summer

|  |                                 |       |
|--|---------------------------------|-------|
| CHM 2211L  | Organic Laboratory Techniques I | 2 hrs |
| Lab may be taken in a later term if seats are not available. |                                 |       |
| GEP  |                                 | 3 hrs |

### Junior Year - Fall

|                     |                                 |       |
|---------------------|---------------------------------|-------|
| CHS 3505C           | Forensic Microscopy             | 4 hrs |
| CHM 3120            | Analytical Chemistry            | 3 hrs |
| CHM 3120L           | Analytical Chemistry Laboratory | 1 hr  |
| CHM 3422            | Applied Physical Chemistry      | 3 hrs |
| Restricted Elective |                                 | 3 hrs |

### Junior Year - Spring

|                     |                                   |       |
|---------------------|-----------------------------------|-------|
| CHS 3511C           | Trace Evidence                    | 4 hrs |
| CHS 3595            | Forensic Science in the Courtroom | 3 hrs |
| Restricted Elective |                                   | 3 hrs |
| GEP                 |                                   | 3 hrs |

### Senior Year - Fall

|                     |  |       |
|---------------------|--|-------|
| CHS 3530C           | Forensic Analysis of Controlled Substances | 4 hrs |
| CHS 3533            | Forensic Biochemistry I                    | 2 hrs |
| GEP                 |  | 3 hrs |
| Restricted Elective |  | 3 hrs |

### Senior Year - Spring

|           |  |       |
|-----------|--|-------|
| CHM 4130  | Advanced Analytical Laboratory Technique | 3 hrs |
| CHM 4130L | Advanced Analytical Chemistry Laboratory | 2 hrs |
| BCH 4053  | Biochemistry I                           | 3 hrs |
| CHS 4537  | Forensic Laboratory Quality Assurance    | 2 hrs |
| GEP       |  | 3 hrs |

### Senior Year - Summer

|          |                             |       |
|----------|-----------------------------|-------|
| CHS 4591 | Forensic Science Internship | 4 hrs |
|----------|-----------------------------|-------|

### Program Academic Learning Compacts

- Program Academic Learning Compacts (student learning outcomes) for undergraduate programs are located at:  
[http://www.oeas.ucf.edu/alc/academic\\_learning\\_compacts.htm](http://www.oeas.ucf.edu/alc/academic_learning_compacts.htm)

### Equipment Fees

- Part-Time Student: \$45 per term
- Full-Time Student: \$90 per term