UCF Degree Programs

Forensic Science - Biochemistry Track (B.S.)
College of Sciences
Department of Chemistry, Chemistry, Room: 306A
http://chemistry.cos.ucf.edu/

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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 complete categories 2 (Common Program Prerequisites) and 3 (Core Requirements: Basic Level) below and achieve a minimum 2.5 cumulative GPA in categories 2 and 3 prior to enrolling in the courses described in categories 4 and 5.
■ Students must maintain a minimum 2.5 cumulative GPA in categories 4 and 5 to continue in the major.
■ Individual course prerequisites for enrollment in courses 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)
■ 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
Required ENC 1101 Composition I
Required ENC 1102 Composition II

B: Cultural & Historical Foundations (9 hrs)

C: Mathematical Foundations (7 hrs)
Required MAC 2311C Calculus with Analytic Geometry I
Required STA 2023 Statistical Methods I

D: Social Foundations (6 hrs)

E: Science Foundations (8 hrs)
Required BSC 2010C Biology I
Required PHY 2048C Physics for Engineers & Scientists I

2. Common Program Prerequisites (CPP) (16 hrs)
■ See “Common Prerequisites” in the Transfer and Transitions Services section for more information.

BSC 2010C Biology I

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 2312C Calculus with Analytic Geometry II 4 hrs
PHY 2048C Physics for Engineers & Scientists I GEP
PHY 2049C Physics for Engineers and Scientists II 4 hrs

3. Core Requirements: Basic Level (20 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 GEP/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 2312C Calculus with Analytic Geometry II and CPP
PHY 2048C Physics for Engineers & Scientists I and CPP
PHY 2049C Physics for Engineers and Scientists II CPP

Basic Core: Additional Requirements 20 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 and 3 hrs
PCB 3063L Genetics Laboratory and 1 hr
PCB 3233 Immunology and 3 hrs
PCB 3233L Immunology Laboratory 1 hr

4. Core Requirements: Advanced Level (45 hrs)

A. Forensic Science Core 18 hrs

CHS 3501 Introduction to Forensic Science 3 hrs
CHS 3505C Forensic Microscopy 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

B. Forensic Biochemistry Track: 27 hrs

BCH 4053 Biochemistry I 3 hrs
BCH 4054 Biochemistry II 3 hrs
BCH 4103L Biochemical Methods 2 hrs
BSC 3403C Quantitative Biological Methods 4 hrs
CHS 4534C Forensic Biochemistry II 3 hrs
CHS 3533L Forensic Biochemistry I Laboratory 1 hr
MCB 3020C General Microbiology 5 hrs
PCB 3522 Molecular Biology I 3 hrs
PCB 4524 Molecular Biology II 3 hrs

5. Restricted Electives (3 hrs)
Any course approved by the Forensic Program advisor.

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
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 departmental degree requirements.
- Achieve at least a minimum overall 2.5 GPA in all courses attempted to satisfy categories 2, 3, 4, and 5 of the departmental degree requirements.
- 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 - Analysis Track
- Biomedical Sciences

Certificates
- None

Related Minors
- Chemistry
- Biomedical Sciences

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 classes 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
- This plan assumes you need to begin with the two semester chemistry course and pre-calculus. Having to start at a lower math class will increase the hours needed to be taken.

Freshman Year - Fall
- CHM 2040: Chemistry Fundamentals I 3 hrs
- CHS 3501: Introduction to Forensic Science 3 hrs
- MAC 1140C: Pre-Calculus Algebra 3 hrs
- ENC 1101: Composition I 3 hrs

Freshman Year - Spring
- CHS 3501: Introduction to Forensic Science 3 hrs
- CHM 2041: Chemistry Fundamentals IB 3 hrs
- MAC 2311C: Calculus with Analytic Geometry I 4 hrs
- STA 2023: Statistical Methods I 3 hrs
- ENC 1102: Composition II 3 hrs
- GEP 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.

Sophomore Year - Fall
- CHM 2210: Organic Chemistry I 3 hrs
- PHY 2048C: Physics for Engineers & Scientists I 4 hrs
- MAC 2312: Calculus with Analytic Geometry II 4 hrs
- SPC 1603C: Fundamentals of Technical Presentations 3 hrs

Sophomore Year - Spring
- CHM 2211: Organic Chemistry II 3 hrs
- CHM 2211L: Organic Laboratory Techniques I 2 hrs
- Lab may be taken in a later term if seats are not available.
- MCB 3020C: General Microbiology 5 hrs
- GEP 3 hrs

Sophomore Year - Summer
- PHY 2049C: Physics for Engineers and Scientists II 4 hrs

Junior Year - Fall
- CHS 3505C: Forensic Microscopy 4 hrs
- PCB 3233: Immunology 3 hrs
- PCB 3233L: Immunology Laboratory 1 hr
- GEP 3 hrs

Junior Year - Spring
- CHS 3595: Forensic Science in the Courtroom 3 hrs
- CHS 3533L: Forensic Science Laboratory Quality Assurance 2 hrs
- CHM 3120: Analytical Chemistry 3 hrs
- CHM 3120L: Analytical Chemistry Laboratory 1 hr
- PCB 3063: Genetics 3 hrs
- PCB 3063L: Genetics Laboratory 1 hr

Senior Year - Fall
- CHS 3533: Forensic Biochemistry I 2 hrs
- CHS 3533L: Forensic Biochemistry I Laboratory 1 hr
- BCH 4053: Biochemistry I 3 hrs
- PCB 3522: Molecular Biology I 3 hrs
- BSC 3403C: Quantitative Biological Methods 4 hrs
- GEP 3 hrs

Senior Year - Spring
- CHS 4534C: Forensic Biochemistry II 3 hrs
- BCH 4054: Biochemistry II 3 hrs
- BCH 4103L: Biochemical Methods 2 hrs
- PCB 4524: Molecular Biology II 3 hrs
- Restricted Elective 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.oias.ucf.edu/academiclearningcompacts.html

Equipment Fees
- Part-Time Student: $45 per term
- Full-Time Student: $90 per term