

Undergraduate Catalog

Forensic Science, Biochemistry Track (B.S.)

College

College of Sciences

Department

Department of Chemistry

Program Type

Major

Program Contact Information

[College of Sciences](#)

[Department of Chemistry](#)

Physical Sciences Building (PSB), 255

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Undergraduate Coordinator for Forensic Science: Dr. Tamra Legron-Rodriguez

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Admission Requirements

None

Program Description

Students completing the Forensic Science - Biochemistry Track B.S. degree will also meet the requirements for ACS certification. This track is designed to align students with specific courses necessary for the examination of DNA and other biochemical evidence. Students should be advised that background checks similar to those required for law enforcement officers are likely to be a condition of employment (Reference: NIJ Report NCJ 203099).

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.
- Prior to enrolling in Chemistry and Math, you must take the Chemistry Placement Test and Math Placement Test ~ <https://www.sdes.ucf.edu/placement-tests/>
- 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 Common Program Prerequisites, Core Requirements: Basic Level, Core Requirements: Advanced Level, and Restricted Electives.
- All prerequisites of courses taught within the College of Sciences will be enforced.
- Courses designated in Common Program Prerequisites are usually completed in the first 60 hours.

General Education (GEP)

Complete all of the following

GEP 1 & 2- Communication Foundation

Complete all courses from the following:

GEP 1 & 2- Communication Foundation

[ENC1101](#) - Composition I (3)

[ENC1102](#) - Composition II (3)

GEP 3- Communication Foundation

Complete all of the following

SPC 1603C - Preferred

Complete at least 1 courses from the following:

GEP 3- Communication Foundation

[COM1000](#) - Introduction to Communication (3)

[SPC1603C](#) - Fundamentals of Technical Presentations (3)

[SPC1608](#) - Fundamentals of Oral Communication (3)

GEP 4- Historical & Cultural Foundation

Complete at least 1 courses from the following:

GEP 4- Historical & Cultural Foundation

[AMH2010](#) - U.S. History: 1492-1877 (3)

[EUH2000](#) - Western Civilization I (3)

[EUH2001](#) - Western Civilization II (3)

[HUM2020](#) - Encountering the Humanities (3)

[HUM2210](#) - Studies in Culture: Ancient to 17th Century (3)

[HUM2230](#) - Studies in Culture: 17th Century to Present (3)

[WOH2012](#) - World Civilization I (3)

[WOH2022](#) - World Civilization II (3)

GEP 5- Historical & Cultural Foundation

Complete at least 1 courses from the following:

GEP 5- Historical & Cultural Foundation

[ANT2410](#) - Cultural Anthropology: Global Perspectives, Local Contexts (3)

[ARH2050](#) - History of Western Art I (3)

[ARH2051](#) - History of Western Art II (3)

[FIL1000](#) - Cinema Survey (3)

[FIL2030](#) - History of Motion Pictures (3)

[FIL3036](#) - Film History I (3)

[FIL3037](#) - Film History II (3)

[LIT2110](#) - World Literature I (3)

[LIT2120](#) - World Literature II (3)

[MUH2017](#) - Survey of Rock Music (3)

[MUH2019](#) - American Popular Music, 1840s-present (3)

[MUL2016](#) - Evolution of Jazz (3)

[MUL2720](#) - Music of the World (3)

[PHI2010](#) - Introduction to Philosophy (3)

[REL2300](#) - World Religions (3)

[THE2000](#) - Theatre Survey (3)

[MUL2010](#) - Enjoyment of Music (3)

GEP 6- Historical & Cultural Foundation

Complete at least 1 courses from the following:

GEP 4- Historical & Cultural Foundation

[AMH2010](#) - U.S. History: 1492-1877 (3)

[EUH2000](#) - Western Civilization I (3)

[EUH2001](#) - Western Civilization II (3)

[HUM2020](#) - Encountering the Humanities (3)

[HUM2210](#) - Studies in Culture: Ancient to 17th Century (3)

[HUM2230](#) - Studies in Culture: 17th Century to Present (3)

[WOH2012](#) - World Civilization I (3)

[WOH2022](#) - World Civilization II (3)

GEP 5- Historical & Cultural Foundation

[ANT2410](#) - Cultural Anthropology: Global Perspectives, Local Contexts (3)

[ARH2050](#) - History of Western Art I (3)

[ARH2051](#) - History of Western Art II (3)

[FIL1000](#) - Cinema Survey (3)

[FIL2030](#) - History of Motion Pictures (3)

[FIL3036](#) - Film History I (3)

[FIL3037](#) - Film History II (3)

[LIT2110](#) - World Literature I (3)

[LIT2120](#) - World Literature II (3)

[MUH2017](#) - Survey of Rock Music (3)

[MUH2019](#) - American Popular Music, 1840s-present (3)

[MUL2016](#) - Evolution of Jazz (3)

[MUL2720](#) - Music of the World (3)

[PHI2010](#) - Introduction to Philosophy (3)

[REL2300](#) - World Religions (3)

[THE2000](#) - Theatre Survey (3)

[MUL2010](#) - Enjoyment of Music (3)

GEP 7- Mathematical Foundation

Complete the following:

[MAC2311C](#) - Calculus with Analytic Geometry I (4)

GEP 8- Mathematical Foundation

Complete the following:

[STA2023](#) - Statistical Methods I (3)

GEP 9- Social Foundation

Complete at least 1 courses from the following:

GEP 9- Social Foundation

[ANT2000](#) - General Anthropology (3)

[HSA2117](#) - Civic Engagement in the US Healthcare System (3)

[PSY2012](#) - General Psychology (3)

[SYG2000](#) - Introduction to Sociology (3)

GEP 10- Social Foundation

Complete at least 1 courses from the following:

GEP 10- Social Foundation

[AMH2020](#) - U.S. History: 1877-Present (3)

[ECO2013](#) - Principles of Macroeconomics (3)

[ECO2023](#) - Principles of Microeconomics (3)

[POS2041](#) - American National Government (3)

GEP 11- Science Foundation

Complete the following:

[BSC2010C](#) - Biology I (4)

GEP 12- Science Foundation

Earn at least 4 credits from the following course sets:

PHY 2048C

[PHY2048C](#) - General Physics Using Calculus I Studio (4)

PHY 2048 and 2048L

[PHY2048](#) - General Physics Using Calculus I (3)

[PHY2048L](#) - General Physics Using Calculus I Laboratory (1)

Grand Total Credits: 39

Common Program Prerequisites (CPP) (If applicable)

Complete all of the following

In addition to completing all of the required GEP ([BSC2010C](#), [MAC2311C](#), [STA2023](#), and [PHY2048C](#) (or [PHY2048](#) and [PHY2048L](#))),

Complete the following:

[CHM2045C](#) - Chemistry Fundamentals I (4)

[CHM2046](#) - Chemistry Fundamentals II (3)

[CHM2046L](#) - Chemistry Fundamentals Laboratory (1)

[CHM2210](#) - Organic Chemistry I (3)

[CHM2211](#) - Organic Chemistry II (3)

[CHM2211L](#) - Organic Laboratory Techniques I (2)

[MAC2312](#) - Calculus with Analytic Geometry II (4)

Earn at least 4 credits from the following course sets:

PHY 2049C

[PHY2049C](#) - General Physics Using Calculus II Studio (4)

PHY 2049 and 2049L

[PHY2049](#) - General Physics Using Calculus II (3)

[PHY2049L](#) - General Physics Using Calculus II Laboratory (1)

Grand Total Credits: 24

Degree Requirements

Core Requirements: Basic Level

12 Total Credits

Complete all of the following

In addition to completing all of the required GEP and CPP courses,

Complete the following:

[BSC2011C](#) - Biology II (4)

[CHM3120](#) - Analytical Chemistry (3)

[CHM3120L](#) - Analytical Chemistry Laboratory (1)

[PCB3063](#) - Genetics (3)

[PCB3063L](#) - Genetics Laboratory (1)

Core Requirements: Advanced Level

44 Total Credits

Complete all of the following

Forensic Science Core

Complete the following:

[BCH4053](#) - Biochemistry I (3)

[CHM3422](#) - Applied Physical Chemistry (3)

[CHS3501](#) - Introduction to Forensic Science (3)

[CHS3505C](#) - Forensic Microscopy (4)

[CHS3511C](#) - Trace Evidence (4)

[CHS3530C](#) - Forensic Analysis of Controlled Substances (4)

[CHS3533](#) - Forensic Biochemistry I (2)

[CHS3595](#) - Forensic Science in the Courtroom (3)

[CHS4515C](#) - Forensic Crime Scene Investigation (3)

[CHS4537](#) - Forensic Laboratory Quality Assurance and Professional Practice (3)

Forensic Biochemistry Track

Complete the following:

[CHS3533L](#) - Forensic Biochemistry I Laboratory (1)

[CHS4534C](#) - Forensic Biochemistry II (3)

[MCB3020C](#) - General Microbiology (5)

[PCB3522](#) - Molecular Biology I (3)

Restricted Electives

2 Total Credits

Earn at least 2 credits from the following types of courses:

Select from the courses listed below or an alternate course as approved by the Forensic Science Program Advisor. More than two credits may be taken.

ANT 4521 - Forensic Anthropology Credit Hours: 3

BCH 4054 - Biochemistry II Credit Hours: 3

BSC 3403C - Quantitative Biological Methods Credit Hours: 4

CHM 3215L - Organic Laboratory Techniques II Credit Hours: 2

CHM 4130 - Advanced Analytical Laboratory Technique Credit Hours: 3

CHM 4130L - Advanced Analytical Chemistry Laboratory Credit Hours: 2

CHM 4220 - Organic Chemistry III Credit Hours: 3

CHM 4223 - Advanced Organic Chemistry Credit Hours: 3

CHM 4230 - Applied Molecular Spectroscopy Credit Hours: 3

CHM 4427 - Electrochemistry Credit Hours: 3

CHM 4912 - Directed Independent Research Credit Hours: 3

CHS 4615 - Environmental Chemistry Credit Hours: 3

CHS 5504 - Topics in Forensic Science Credit Hours: 3

DSC 4012 - Terrorism Credit Hours: 3

PCB 3233 - Immunology Credit Hours: 3

PCB 3233L - Immunology Laboratory Credit Hours: 1

PCB 4524 - Molecular Biology II Credit Hours: 3

PCB 4684 - Population Genetics Credit Hours: 3

STA 4163 - Statistical Methods II Credit Hours: 3

ZOO 3733C - Human Anatomy Credit Hours: 4

Students may choose one of the following:

CCJ 3014 - Crime in America Credit Hours: 3

CCJ 3024 - Criminal Justice System Credit Hours: 3

CJE 4012 - Criminal Profiling in Criminal Justice Credit Hours: 3

CJE 4610 - Criminal Investigation Credit Hours: 3

Capstone Requirements

3 Total Credits

Complete the following:

Grand Total Credits: 61

Program Details

Foreign Language Requirements

Graduation

- None

Departmental Exit Requirements

- Students must earn a "C" (2.0) or higher in each course and have a minimum 2.5 cumulative GPA in all courses in Common Program Prerequisites, 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.

University Minimum Exit Requirements

- A 2.0 UCF GPA
- 42 semester hours of upper division credit completed
- 60 semester hours earned after CLEP awarded
- 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 Undergraduate Credit Hours Required: 124

Honors In Major

- Application and admissions through The Burnett Honors College and department. More information about Honors in the Major can be found at <https://honors.ucf.edu/research/>.

Related Programs

- Forensic Science, Chemistry Track (B.S.)
- Chemistry (B.S.)
- Biomedical Sciences (B.S.)

- Chemistry Minor
- Biomedical Sciences Minor

Advising Notes

- Students should consult with a departmental advisor.
- Contact your college advisor in the College of Sciences Advising Services (COSAS) office (CSB 250) for more information about overall progress toward your degree, GEP and other university requirements, academic probation, special problems as well as general academic advising.

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.
- Submit your requests for course evaluations at <https://sciences.ucf.edu/cosas/> and click on "COS Course Evaluation".
- Acceptable Substitutes for Transfer Courses
 - CHM 2045C: may use CHM 2040 plus CHM 2041.
 - Calculus: Although other math classes may satisfy the CPP, the specified courses are required in the major and still must be taken.
 - Physics: Although other courses may satisfy Organic Chemistry in the CPP, all the specified courses are required in the major and must be taken.

Program Academic Learning Compacts

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

Equipment Fees

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

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