

Forensic Chemistry/Biochemistry BS

Degree Requirements (120 hours)

Degree Plan

General Education Curriculum

GEC 01. Written Communication (6 hours)

- ENG 101 - Composition One 3 hrs.
- ENG 102 - Composition Two 3 hrs.

GEC 02. Natural Sciences (8 hours minimum)

Select 2 courses with labs:

- AST 111 - General Astronomy I 3 hrs. AND
- AST 111L - General Astronomy I Laboratory 1 hr.
- AST 112 - General Astronomy II 3 hrs. AND
- AST 112L - General Astronomy II Laboratory 1 hr.
- BSC 103 - Biology and Society 3 hrs. AND
- BSC 103L - Biology and Society Laboratory 1 hr.
- BSC 107 - Essentials of Human Anatomy and Physiology 3 hrs. AND
- BSC 107L - Essentials of Human Anatomy and Physiology Laboratory 1 hr.
- BSC 110 - Principles of Biological Science I 3 hrs. * AND
- BSC 110L - Principles of Biological Science I Laboratory 1 hr. *
- BSC 111 - Principles of Biological Science II 3 hrs. * AND
- BSC 111L - Principles of Biological Science II Laboratory 1 hr. *
- BSC 250 - Human Anatomy and Physiology I 3 hrs. AND
- BSC 250L - Human Anatomy and Physiology I Laboratory 1 hr.
- BSC 251 - Human Anatomy and Physiology II 3 hrs. AND
- BSC 251L - Human Anatomy and Physiology II Laboratory 1 hr.
- CHE 104 - Chemistry and Our Environment 3 hrs. AND
- CHE 104L - Chemistry and Our Environment Laboratory 1 hr.
- CHE 106 - General Chemistry I 3 hrs. * AND
- CHE 106L - General Chemistry I Laboratory 1 hr. *
- GHY 104 - Weather and Climate 3 hrs. AND
- GHY 104L - Weather and Climate Laboratory 1 hr.

- GHY 105 - Land and Water 3 hrs. AND
- GHY 105L - Land and Water Lab 1 hr.

- GLY 101 - Physical Geology 3 hrs. AND
- GLY 101L - Physical Geology Laboratory 1 hr.

- GLY 103 - Historical Geology 3 hrs. AND
- GLY 103L - Historical Geology Laboratory 1 hr.

- MAR 151 - Introduction to Ocean Science 3 hrs. AND
- MAR 151L - Introduction to Ocean Science Laboratory 1 hr.

- PHY 103 - Introductory Physics 3 hrs. AND
- PHY 103L - Introductory Physics Laboratory 1 hr.

- PHY 111 - General Physics I 3 hrs. * AND
- PHY 111L - General Physics I Laboratory 1 hr. *

- PHY 112 - General Physics II 3 hrs. * AND
- PHY 112L - General Physics II Laboratory 1 hr. *

- PHY 201 - General Physics I with Calculus 4 hrs. AND
- PHY 201L - General Physics I with Calculus Laboratory 1 hr.

- PHY 202 - General Physics II with Calculus 4 hrs. AND
- PHY 202L - General Physics II with Calculus Laboratory 1 hr.

- PSE 190 - Living in a Material World 3 hrs. AND
- PSE 190L - Lab for Living in a Material World 1 hr.

GEC 03. Humanities (9 hours)

- ENG 203 - World Literature 3 hrs.

Select 2 courses, 1 History required:

- HIS 101 - World Civilizations: Beginnings to 1500 C.E. 3 hrs.
- HIS 102 - World Civilizations: 1500 to the present 3 hrs.
- HUM 201 - Colloquium on the Pre-Modern World 3 hrs.
- HUM 202 - Colloquium on the Modern World 3 hrs.
- PHI 151 - Introduction to Philosophy 3 hrs.
- PHI 171 - Ethics and Good Living 3 hrs.
- REL 131 - Comparative Religion 3 hrs.

GEC 04. Aesthetic Values (3 hours)

Select 1 course:

- ART 130 - Art Appreciation 3 hrs.
- DAN 130 - Dance Appreciation 3 hrs.
- MUS 165 - The Enjoyment of Music 3 hrs.
- THE 100 - Theatre Appreciation 3 hrs.

GEC 05. Social and Behavioral Sciences (6 hours)

Select 2 courses:

- ANT 101 - The Human Experience: A Global Perspective on Human Diversity 3 hrs.
- ANT 221 - Introduction to Cultural & Linguistic Anthropology 3 hrs.
- HHS 100 - Concepts of Wellness 3 hrs.
- ECO 101 - Basic Economics 3 hrs.
- GHY 101 - World Geography: Dynamics of a Changing Earth 3 hrs.
- PS 101 - American Government 3 hrs.
- PSY 110 - General Psychology 3 hrs.
- SOC 101 - Understanding Society: Principles of Sociology 3 hrs.
- WL 110 – Introduction to Language 3 hrs.

GEC 06. Mathematics (3 hours)

Select 1 course:

- MAT 100 - Quantitative Reasoning 3 hrs. ***
- MAT 101 - College Algebra 3 hrs.
- Higher-level MAT course *
- ACT Math sub score of 24 or higher
- SAT Math score of 560 or higher

GEC 07. Writing-Intensive Requirement (4 hours)

- FSC 355 – Crime Scene Documentation 3 hrs. (WI) AND
- FSC 355L – Crime Scene Documentation Laboratory 1 hr. (WI)
ENG.767.™ .ENG.768.prerequisites

GEC 08. Speaking-Intensive Requirement (3 hours)

Select 1 course:

- CMS 111 – Public Speaking 3 hrs.
- CMS 305 – Interpersonal Communication 3 hrs.
- CMS 320 – Professional Communication 3 hrs.
- CMS 330 – Small-Group Communication 3 hrs.

GEC 09. Capstone Requirement (Major Area)

- FSC 435 – Forensic Quality Management 3 hrs. (Capstone)
Must be taken Senior Year; ENG 101 & ENG 102 prerequisites

Note:

*This course satisfies both the GEC requirement and a program requirement for this major.

**This particular GEC course is recommended by this major.

***This course does not satisfy prerequisites for any other math course.

GEC 07 - GEC 09 courses are specific to this major.

For full description of the GEC, see here.

Program Curriculum

DEG 01. Major Area of Study Requirements (59 hours)

Forensic Science Core (20 hours)

- CJ 200 – Introduction to Criminal Justice 3 hrs.
- FSC 101 – Survey of Forensic Science 3 hrs.
- FSC 240 – Introduction to Forensic Science I 3 hrs. AND
- FSC 240L – Introduction to Forensic Science I Laboratory 1 hr.
- FSC 241 – Introduction to Forensic Science II 3 hrs.
- FSC 355 – Crime Scene Documentation 3 hrs. (WI) AND
- FSC 355L – Crime Scene Documentation Laboratory 1 hr. (WI)
- FSC 435 – Forensic Quality Management 3 hrs. (Capstone)

Forensic Chemistry Requirements (32 hours)

- CHE 255 – Organic Chemistry I 3 hrs. AND
- CHE 255L – Organic Chemistry I Laboratory 1 hr.
- CHE 256 – Organic Chemistry II 3 hrs. AND
- CHE 256L – Organic Chemistry II Laboratory 1 hr.
- CHE 311 – Analytical Chemistry 3 hrs.
- CHE 311L – Analytical Chemistry Laboratory 2 hrs.
- CHE 400 – Chemical Literature 3 hrs.
- CHE 420 – Principles of Biochemistry 3 hrs. AND
- CHE 420L – Principles of Biochemistry Laboratory 1hr.
- FSC 320 – Forensic Analysis 3 hrs. AND
- FSC 320L – Forensic Analysis Laboratory 1 hr.
- FSC 430 – Survey of Forensic Toxicology 3 hrs. AND
- FSC 430L – Survey of Forensic Toxicology Laboratory 1 hr.
- FSC 440 – Drug Identification 3 hrs. AND
- FSC 440L – Drug Identification Laboratory 1 hr.

Forensic Science Electives (8 hours)

Select 8 hours from the following courses:

- ANT 342 – Forensic Anthropology 3 hrs.
- FSC 301 – Forensic Biology I 3 hrs.
- FSC 317 – Footwear Analysis 3 hrs.
- FSC 321 – Forensic Biology II 3 hrs.
- FSC 331 – Forensic Photography 3 hrs.

- FSC 340 – Fingerprint Analysis 3 hrs. AND
- FSC 340L – Fingerprint Analysis Laboratory 1hr.

- FSC 410 – Firearms Identification 3 hrs.
- FSC 442 – Arson and Explosives 3 hrs.
- FSC 450 – Courtroom Testimony 3 hrs.

- FSC 455 – Advanced Crime Scene Documentation 3 hrs. AND
- FSC 455L – Advanced Crime Scene Documentation Laboratory 1 hr.

- FSC 480 – Seminar in Forensic Science 3 hrs.
- FSC 492 – Special Problems 1 – 6 hrs.

- FSC 400 – Internship 3 hrs. OR
- FSC 497 – Field Study in Forensic Science 1 – 6 hrs.

- ITC 447 – Cyber Crime and Digital Forensics 3 hrs.

DEG 02. Additional Requirements (19-30 hours)

- BSC 110 – Principles of Biological Science I 3 hrs. * AND
- BSC 110L – Principles of Biological Science I Laboratory 1 hr. *

- BSC 111 – Principles of Biological Science II 3 hrs. * AND
- BSC 111L – Principles of Biological Science II Laboratory 1 hr. *

- CHE 106 – General Chemistry I 3 hrs. * AND
- CHE 106L – General Chemistry I Laboratory 1 hr. *

- CHE 107 – General Chemistry II 3 hrs. AND
- CHE 107L – General Chemistry II Laboratory 1 hr.

- PHY 111 – General Physics I 3 hrs. * AND
- PHY 111L – General Physics I Laboratory 1 hr. *

- PHY 112 – General Physics II 3 hrs. * AND
- PHY 112L – General Physics II Laboratory 1 hr. *

Select 1 course:

- MAT 114 – Calculus for the Arts and Sciences 3 hrs. ♦*
- MAT 167 – Calculus I with Analytic Geometry 3 hrs. *

Select 1 course:

- MAT 115 – Elementary Statistics 3 hrs. *
- DPH 440 – Introduction to Biostatistics 3 hrs.

DEG 03. Electives

Choose electives as needed with advisor's approval. (See Hours to Degree below.)

Note:

♦ Calculus is required for this major. Students may enter MAT 114 directly if Math ACT sub score is 24 or higher. If Math ACT sub score is less than 24, MAT 101 must be completed with a grade of C or better. Students may enter MAT 167 directly if Math ACT sub score is 26 or higher.

Hours to Degree

120 hours are needed to graduate with a Forensic Chemistry BS. Of the total hours applied to this degree, 30 hours must be in courses numbered at the 300 level or above. The student must earn at least 21 of the last 30 hours of course work and at least 12 hours in the major area of study from Southern Miss. See Residence Hour Requirements for more information.