Program Change Request

Date Submitted: 10/08/24 1:38 pm

Viewing: SC-BS-FRSC : Forensic Science, BS

Last approved: 05/30/24 3:52 pm

Last edit: 10/08/24 1:38 pm

Changes proposed by: kcarisi

Catalog Pages Using this Program

Forensic Science, BS

Are you completing this form on someone else's behalf?

No

Effective Catalog:	2025-2026
Program Level:	Undergraduate
Program Type:	Bachelor's
Degree Type:	Bachelor of Science
Title:	Forensic Science, BS
Banner Title:	Forensic Science, BS
Registrar/OAPI Use Only – SCHEV Status	Approved
Registrar's Office Use Only – Program Start Term	
Registrar/OAPI Use Only – SCHEV Letter	
Registrar/OAPI Use Only – SACSCOC Status	
Concentration(s):	

In Workflow

1. **FRSC Chair**
2. **SC Curriculum Committee**
3. SC Assistant Dean
4. Assoc Provost-Undergraduate
5. Registrar-Programs

Approval Path

1. 10/08/24 2:10 pm Mary O'Toole (motoole2): Approved for FRSC Chair

History

1. Nov 1, 2017 by clmig-jwehrheim
2. Dec 7, 2018 by Jennifer Bazaz Gettys (jbazaz)
3. Dec 5, 2019 by Jennifer Bazaz Gettys (jbazaz)
4. Mar 26, 2020 by Tory Sarro (vsarro)
5. Jan 29, 2021 by Jennifer Bazaz Gettys (jbazaz)
6. Apr 13, 2021 by Tory Sarro (vsarro)
7. Apr 13, 2021 by Tory Sarro (vsarro)
8. Apr 13, 2021 by Tory Sarro (vsarro)

9. May 12, 2022 by Tory Sarro (vsarro)
10. May 25, 2022 by Tory Sarro (vsarro)
11. Apr 4, 2023 by Jennifer Bazaz Gettys (jbazaz)
12. Mar 14, 2024 by Jennifer Bazaz Gettys (jbazaz)
13. May 30, 2024 by Tory Sarro (vsarro)

	Associated Concentrations	Registrar's Office Use Only: Concentration Code
1	Criminalistics	FRCR
2	Forensic Biology	FRBL
3	Forensic Chemistry	FRCH
4	Interdisciplinary Forensic Science	FRIN

Registrar/IRR Use Only – Concentration CIP Code

College/School: College of Science

Department / Academic Unit: Forensic Science Program

Jointly Owned Program? No

Justification

What: Adding upper level BIOL courses that are relevant to students pursuing a forensic science degree to the Supporting Sciences/Concentration Courses offering list for the following applicable concentrations: Criminalistics, Forensic Biology, and Interdisciplinary Forensic Science concentrations.

Why: All forensic science majors are required to take upper level science courses that may be relevant to their potential career path as a forensic science student. These courses fall under Supporting Science or Concentration Courses categories. This proposal requests the addition of several BIOL courses to be added to these course offering lists to give students more course

options that are relevant to the field of forensic science under consultation with BIOL and FRSC faculty.

Total Credits Required: Total credits: minimum 120

Registrar's Office Use Only - Program Code:

SC-BS-FRSC

Registrar/IRR Use Only – Program CIP Code

Admission Requirements:

Admissions

University-wide admissions policies can be found in the Undergraduate Admissions Policies section of this catalog. To apply for this program, please complete the George Mason University Admissions Application.

Program-Specific Policies:

Policies

Students must fulfill all Requirements for Bachelor's Degrees, including the Mason Core.
FRSC 302 Forensic Trace Analysis (Mason Core) **or** FRSC 304 Forensic Chemistry (Mason Core) will satisfy the writing intensive requirement.
For policies governing all undergraduate programs, see AP.5 Undergraduate Policies.

Degree Requirements:

Students should refer to the Admissions & Policies tab for specific policies related to this program.
Students must complete the core courses, select one concentration, and complete Mason Core and Elective Credits.
All major coursework must be completed with a minimum GPA of 2.30. No more than three courses with a grade of 'D' (1.00) may be applied to the major.
Students are advised to be aware of any prerequisites that may be required for each course in the curriculum.
Students are only permitted three attempts for all major courses; following a third unsuccessful attempt the student will no longer be able to pursue the major.

Core Courses

Students in each concentration must complete the following courses:

Forensic Science Core Courses		
FRSC 200	Survey of Forensic Science	3

FRSC 201	Introduction to Criminalistics	3
FRSC 302	Forensic Trace Analysis (Mason Core) [1]	3
CRIM 100	Introduction to Criminal Justice (Mason Core)	3
Natural Science Core Courses		
BIOL 213	Cell Structure and Function (Mason Core)	4
BIOL 214	Biostatistics for Biology Majors	3-4
or STAT 250	Introductory Statistics I (Mason Core)	
BIOL 311	General Genetics	4
CHEM 211	General Chemistry I (Mason Core)	4
& CHEM 213	and General Chemistry Laboratory I (Mason Core)	
CHEM 212	General Chemistry II (Mason Core)	4
& CHEM 214	and General Chemistry Laboratory II (Mason Core)	
CHEM 313	Organic Chemistry I	5
& CHEM 315	and Organic Chemistry Lab I	
CHEM 314	Organic Chemistry II	5
& CHEM 318	and Organic Chemistry Lab II	
MATH 113	Analytic Geometry and Calculus I (Mason Core)	4-6
or MATH 123	Calculus with Algebra/Trigonometry, Part A	
& MATH 124	and Calculus with Algebra/Trigonometry, Part B (Mason Core)	
PHYS 243	College Physics I (Mason Core)	4
& PHYS 244	and College Physics I Lab (Mason Core) [2]	
PHYS 245	College Physics II (Mason Core)	4
& PHYS 246	and College Physics II Lab (Mason Core) [2]	
Total Credits		53-56

1 FRSC 302 will satisfy this major's writing-intensive requirement.

2
- Students in the Forensic Chemistry Concentration may instead choose the following physics sequence: PHYS 160 University Physics I (Mason Core) & PHYS 161 University Physics I Laboratory (Mason Core) & PHYS 260 University Physics II (Mason Core) & PHYS 261 University Physics II Laboratory (Mason Core).
- Please note that PHYS 260 University Physics II (Mason Core) & PHYS 261 University Physics II Laboratory (Mason Core) require a prerequisite of MATH 213 Analytic Geometry and Calculus III.

Concentration in Criminalistics (FRCR)

Forensic Science Extended Core		
FRSC 303	Forensic Evidence and Ethics	3
FRSC 304	Forensic Chemistry (Mason Core)	4
& FRSC 305	and Forensic Chemistry Laboratory [1]	
FRSC 401	Crime Scene Investigations	3
FRSC 405	Independent Research Methods	3
or FRSC 406	Forensic Internship	
FRSC 460	Forensic DNA Analysis	4
& FRSC 461	and Forensic DNA Analysis Laboratory	
Required Concentration Courses		
Select two lecture and laboratory pairings for a minimum of 8 credits:		8-12
FRSC 325	Molecular Biology	
& FRSC 326	and Molecular Biology Laboratory	
BIOL 305	Biology of Microorganisms	
& BIOL 306	and Biology of Microorganisms Laboratory	
BIOL 405	Microbial Genetics	
BIOL 407	Microbial Diversity	
BIOL 430	Advanced Human Anatomy and Physiology I	
BIOL 431	Advanced Human Anatomy and Physiology II	
BIOL 452	Immunology	
& BIOL 453	and Immunology Laboratory	
BIOL 465	Histology	
BIOL 483	General Biochemistry	
or CHEM 463	General Biochemistry I	
& CHEM 465	and Biochemistry Lab (Mason Core)	
BIOL 484	Cell Signaling and Disease	
& BIOL 485	and Cell Signaling Laboratory	
CHEM 321	Quantitative Chemical Analysis	
CHEM 331	Physical Chemistry I	
& CHEM 336	and Physical Chemistry Lab I (Mason Core)	
Supporting Science Electives		

Select a minimum of 7 credits (not previously taken) from the following:		7-10
FRSC 325	Molecular Biology	
FRSC 326	Molecular Biology Laboratory	
FRSC 404	Advanced Instrumentation in Forensic Chemistry	
FRSC 450	Practical Forensic Skeletal Biology	
FRSC 470	Forensic Genomics	
BINF 401	Bioinformatics and Computational Biology I	
BINF 402	Bioinformatics and Computational Biology II	
BIOL 305	Biology of Microorganisms	
BIOL 306	Biology of Microorganisms Laboratory	
BIOL 382	Introduction to Virology	
BIOL 385	Biotechnology and Genetic Engineering	
BIOL 401	Phage Discovery	
BIOL 404	Medical Microbiology	
BIOL 405	Microbial Genetics	
BIOL 407	Microbial Diversity	
BIOL 411	Advanced General Genetics	
BIOL 412	Phage Genomics	
BIOL 417	Selected Topics in Molecular and Cellular Biology (when the topic is "Illumina Sequencing")	
BIOL 421	Genetics of Human Diseases	
BIOL 430	Advanced Human Anatomy and Physiology I	
BIOL 431	Advanced Human Anatomy and Physiology II	
BIOL 452	Immunology	
BIOL 453	Immunology Laboratory	
BIOL 460	Infectious Diseases Wildlife	
BIOL 465	Histology	
BIOL 482	Introduction to Molecular Genetics	
BIOL 483	General Biochemistry	

BIOL 484	Cell Signaling and Disease	
BIOL 485	Cell Signaling Laboratory	
BIOL 486	Molecular Biology and Biotechnology Laboratory	
CHEM 321	Quantitative Chemical Analysis	
CHEM 331	Physical Chemistry I	
CHEM 336	Physical Chemistry Lab I (Mason Core)	
CHEM 427	Aquatic Environmental Chemistry	
CHEM 446	Bioinorganic Chemistry	
CHEM 463	General Biochemistry I	
CHEM 464	General Biochemistry II	
CHEM 465	Biochemistry Lab (Mason Core)	
Total Credits		32-39

[1] FRSC 304 Forensic Chemistry (Mason Core) will satisfy this major's writing-intensive requirement.

Concentration in Forensic Biology (FRBL)

Forensic Science Extended Core		
FRSC 303	Forensic Evidence and Ethics	3
FRSC 304 & FRSC 305	Forensic Chemistry (Mason Core) and Forensic Chemistry Laboratory [1]	4
FRSC 401	Crime Scene Investigations	3
FRSC 405	Independent Research Methods	3
or FRSC 406	Forensic Internship	
FRSC 460 & FRSC 461	Forensic DNA Analysis and Forensic DNA Analysis Laboratory	4
Required Concentration Courses		
FRSC 325 & FRSC 326	Molecular Biology and Molecular Biology Laboratory	4
FRSC 470	Forensic Genomics	4
BIOL 483	General Biochemistry	4

Supporting Science Courses		
Select a minimum of 3 credits from the following courses:		3-6
FRSC 450	Practical Forensic Skeletal Biology	
BINF 401	Bioinformatics and Computational Biology I	
BINF 402	Bioinformatics and Computational Biology II	
BIOL 305	Biology of Microorganisms	
BIOL 306	Biology of Microorganisms Laboratory	
BIOL 382	Introduction to Virology	
BIOL 385	Biotechnology and Genetic Engineering	
BIOL 401	Phage Discovery	
BIOL 404	Medical Microbiology	
BIOL 405	Microbial Genetics	
BIOL 407	Microbial Diversity	
BIOL 411	Advanced General Genetics	
BIOL 412	Phage Genomics	
BIOL 417	Selected Topics in Molecular and Cellular Biology (when the topic is "Illumina Sequencing")	
BIOL 421	Genetics of Human Diseases	
BIOL 430	Advanced Human Anatomy and Physiology I	
BIOL 431	Advanced Human Anatomy and Physiology II	
BIOL 452	Immunology	
BIOL 453	Immunology Laboratory	
BIOL 460	Infectious Diseases Wildlife	
BIOL 465	Histology	
BIOL 482	Introduction to Molecular Genetics	
BIOL 484	Cell Signaling and Disease	
BIOL 485	Cell Signaling Laboratory	
BIOL 486	Molecular Biology and Biotechnology Laboratory	

Total Credits	32-35

[1] FRSC 304 Forensic Chemistry (Mason Core) will satisfy this major's writing-intensive requirement.

Concentration in Forensic Chemistry (FRCH)

Extended Forensic Science Core		
FRSC 303	Forensic Evidence and Ethics	3
FRSC 304 & FRSC 305	Forensic Chemistry (Mason Core) and Forensic Chemistry Laboratory [1]	4
FRSC 401	Crime Scene Investigations	3
FRSC 405	Independent Research Methods	3
or FRSC 406	Forensic Internship	
FRSC 460 & FRSC 461	Forensic DNA Analysis and Forensic DNA Analysis Laboratory	4
Required Concentration Courses		
FRSC 404	Advanced Instrumentation in Forensic Chemistry	4
CHEM 321	Quantitative Chemical Analysis	4
MATH 114	Analytic Geometry and Calculus II	4
Supporting Science Courses		
Select a minimum of 7 credits from the following courses:		7-10
CHEM 331	Physical Chemistry I	
CHEM 336	Physical Chemistry Lab I (Mason Core)	
CHEM 332	Physical Chemistry II [2]	
CHEM 337	Physical Chemistry Lab II	
CHEM 422	Instrumental Methods of Chemical Analysis [2]	
CHEM 423	Instrumental Methods of Chemical Analysis Laboratory	
CHEM 424	Principles of Chemical Separation [2]	
CHEM 427	Aquatic Environmental Chemistry	
CHEM 441	Properties and Bonding of Inorganic Compounds [2]	
CHEM 446	Bioinorganic Chemistry	

CHEM 463	General Biochemistry I	
CHEM 464	General Biochemistry II	
CHEM 465	Biochemistry Lab (Mason Core)	
Total Credits		36-39

[1] FRSC 304 Forensic Chemistry (Mason Core) will satisfy this major's writing-intensive requirement.

[2] These course selections recommend the University Physics sequence: PHYS 160 University Physics I (Mason Core), PHYS 161 University Physics I Laboratory (Mason Core), PHYS 260 University Physics II (Mason Core), PHYS 261 University Physics II Laboratory (Mason Core)

Concentration in Interdisciplinary Forensic Science (FRIN)

Extended Forensic Science Core		
Select 6 credits (not previously taken) of any 300-400 level FRSC courses		6
Required Concentration Courses or Minor		
Select a minimum of 15 credits (not previously taken) from the following courses or one of the following minors:		15
Any 300-400 level FRSC courses		
BINF 401	Bioinformatics and Computational Biology I	
BINF 402	Bioinformatics and Computational Biology II	
BIOL 305	Biology of Microorganisms	
BIOL 306	Biology of Microorganisms Laboratory	
BIOL 382	Introduction to Virology	
BIOL 385	Biotechnology and Genetic Engineering	
BIOL 401	Phage Discovery	
BIOL 404	Medical Microbiology	
BIOL 405	Microbial Genetics	
BIOL 407	Microbial Diversity	
BIOL 412	Phage Genomics	
BIOL 411	Advanced General Genetics	

BIOL 417	Selected Topics in Molecular and Cellular Biology (when the topic is "Illumina Sequencing")
BIOL 421	Genetics of Human Diseases
BIOL 430	Advanced Human Anatomy and Physiology I
BIOL 431	Advanced Human Anatomy and Physiology II
BIOL 452	Immunology
BIOL 453	Immunology Laboratory
BIOL 460	Infectious Diseases Wildlife
BIOL 465	Histology
BIOL 482	Introduction to Molecular Genetics
BIOL 483	General Biochemistry
BIOL 484	Cell Signaling and Disease
BIOL 485	Cell Signaling Laboratory
BIOL 486	Molecular Biology and Biotechnology Laboratory
CHEM 321	Quantitative Chemical Analysis
CHEM 331	Physical Chemistry I
CHEM 336	Physical Chemistry Lab I (Mason Core)
CHEM 427	Aquatic Environmental Chemistry
CHEM 446	Bioinorganic Chemistry
CHEM 463	General Biochemistry I
CHEM 464	General Biochemistry II
CHEM 465	Biochemistry Lab (Mason Core)

Any minor offered by the College of Science

Anthropology Minor

Bioengineering Minor

Computer Science Minor

Data Analysis Minor

Criminology, Law, and Society Minor

Forensic Psychology Minor

Information Technology Minor	
Intelligence Studies Minor	
International Security Minor	
Legal Studies Minor	
Photography Minor	
Psychology Minor	
Statistics Minor	
Total Credits	21

Retroactive Requirements Updates:

Effective catalog years 2024-2025

Plan of Study:

Honors Information:

Program Outcomes

Additional Program Information

This information is required by the Office of Accreditation and Program Integrity.

Courses offered via distance (if applicable):

What is the primary delivery format for the program? Face-to-Face Only

Does any portion of this program occur off-campus?

No

Are you working with a vendor / other collaborators to offer your program?

No

Related Departments

Could this program prepare students for any type of professional licensure, in Virginia or elsewhere?

No

Are you adding or removing a licensure component?

No

Additional SCHEV & SACSCOC Information

Is this change a simple retitling of an existing program, with no other changes, to any existing program content, curriculum requirements, etc?

No

Does this change represent a repackaging of content in an existing approved degree/certificate program at the same instructional level (i.e., baccalaureate, master's, or doctoral)?

No

Percentage of total credits containing new course content. ("New course content" is defined by SACSCOC as content that is not currently included in an existing approved degree/certificate program at the same instructiona level. Do not exclude gen ed credits in calculations for undergraduate programs.)

0%-24%

Does this change include the addition of a distance education or face-to-face method of delivery for this program

No

Does this change include the addition of a course/credit-based competency-based education delivery option?

No

Will any additional equipment/facilities be needed?

No

Will any additional faculty be required?

No

Will any additional financial resources be needed?

No

Additional library/learning resources needed?

No

OAPI Use Only – Determination of SACSCOC Impact

Comments or Notes

Green Leaf Program Designation

Is this a Green Leaf program? No

Does this program cover material which crosses into another department?

No

Additional Attachments

SCHEV Proposal

Executive Summary

Reviewer Comments

Additional Comments

Is this course required of all students in this degree program?

%wi_required.eschtml%

Key: 145