

New Program Proposal

Date Submitted: 11/06/19 11:36 am

Viewing: : **Forensic Science, PSM**

Last edit: 11/22/19 12:08 pm

Changes proposed by: jbazaz

In Workflow

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12. Registrar:Create Code
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Approval Path

1. 11/08/19 11:04 am
Tory Sarro (vsarro):
Approved for Registrar-

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

Yes

Requestor:

Name	Extension	Email
Anthony Falsetti	6091	afalsett

Effective Catalog: 2020-2021

Program Level: Graduate

Program Type: Master's

Degree Type: Professional Science Masters

Title: Forensic Science, PSM

Banner Title: Forensic Science, PSM

Is this a retitling of an existing program? No

Registrar/OAPI Use Only – SCHEV Status Pending Approval

Registrar's Office Use Only – Program Start Term

Registrar/OAPI Use Only – SCHEV Letter

Concentration(s):**Registrar/IRR Use Only – Concentration CIP Code****College/School:** College of Science**Department / Academic Unit:** Forensic Science Program**Jointly Owned Program?** No**Justification** Adding a degree designation of PSM to our Forensic Science, MS. The curriculum was designed with an External Advisory Board comprised of state and federal governmental professionals.

The Professional Science Master’s (PSM) in Forensic Science (PSMFS) is proposed to be offered as a hybrid program (both online and in-class course offerings) taking advantage of the highly popular and in-demand forensic science course of study at Mason. Forensic science encompasses many fields (physical, biological, and social sciences) and deals with the intersection of science, technology, and the law. In common academic parlance “forensic science” most typically refers to the application of any recognized, quantifiable science to the evaluation of a material substance that exists physically or virtually that may be critical to a legal proceeding (for example, assessing the identity of an individual who is accused of a crime via molecular biological testing (e.g., DNA)). This program is designed to provide an advanced understanding of the applicable forensic sciences, human behavior, and best practices with respect to the criminal justice/legal system in tandem with professional and managerial skills.

The curriculum will consist of 36 credits. The structure of the program involves taking core courses, management courses, and emphasis courses. The PSMFS also requires an instructor-approved internship and research project. The research project topics must be related to an appropriate focus within the forensic sciences, including identity, legal applications, intellectual property, methodologies, etc., and must be of sufficient rigor. The applied project is completed under the guidance of a faculty advisor and an external advisory board of forensic science professionals.

- Programs:Workflow Review
2. 11/21/19 11:17 am
Kristin Amaya (kfairch1): Approved for Assoc Provost-Graduate
 3. 11/21/19 1:21 pm
Tory Sarro (vsarro): Approved for Registrar-Programs:Exec Summary
 4. 11/22/19 12:08 pm
Jennifer Bazaz Gettys (jbazaz): Approved for SC CAT Editor

The primary goal of the proposed PSMFS is to prepare students and professionals for the next stage in their careers by providing them with advanced knowledge in forensic science and managerial skillsets so they can take advantage of exciting and increasingly more demanding administrative opportunities. The ultimate aim of the program is the successful placement of graduates in relevant positions, helping students achieve their professional goals. The program will provide students with a comprehensive understanding of major practical and theoretical concepts in forensic biology, chemistry, quality assurance and quality control practices, and technology along with critical organizational and strategic management skillsets that will prepare them for success.

Total Credits Required: Total credits: 36

Registrar's Office Use Only - Program Code:

Registrar/IRR Use Only – Program CIP Code

Admission Requirements:

Admissions

Application Requirements

University-wide admissions policies can be found in [Graduate Admissions Policies](#).

To apply for this program, please complete the [George Mason University Admissions Application](#).

In addition to fulfilling Mason's admission requirements for graduate study, applicants must provide:

- Three letters of recommendation from academic references or references in the industry or government who are familiar with the applicant's academic and/or professional accomplishments
- Resume
- Detailed goal statement to include why you are interested in coming into Mason's Forensic Science, PSM program: Your career goals and professional aspirations
- Official transcripts from each institution of higher education attended
- A Virginia Domicile Classification Form

TOEFL scores are required of all international applicants who do not hold at least a bachelor's degree from a regionally-accredited institution within the US (some exceptions apply). The TOEFL score has to at least be a total of 88, with a minimum of 20 in each section.

The GRE is not required for admission into this program. Additional requirements for each program emphasis are listed below.

Emphasis-specific Requirements

Crime Scene Investigation

A bachelor of science or bachelor of arts degree in a related field.

Biometric Identity Analysis Emphasis, Forensic Biology Analysis Emphasis, and Forensic Chemistry Analysis Emphasis

A bachelor's degree in a forensic or natural science.

Program-Specific Policies:

Policies

For policies governing all graduate programs, see [AP.6 Graduate Policies](#).

Premium Tuition

Students enrolled in this program are charged at a differential (premium) tuition rate. Therefore, any courses that they may enroll in are subject to the differential tuition rate, including any professional skills courses.

Emphasis Declaration

Students must declare their intended emphasis upon application. In the event that a student wishes to change their emphasis, students may request the change by submitting a letter to the Forensic Science Program Director detailing the request and providing justification. These requests and possible substitutions/waivers will be considered on a case-by-case basis and only when the appropriate admissions requirements are met.

Criminal Background Check

The successful passing of a [Virginia Department of Forensic Sciences](#) background check is required prior to gaining access to [FRSC 540](#) Advanced Forensic Chemistry, [FRSC 541](#) Forensic Chemistry Laboratory, [FRSC 560](#) Advanced Forensic DNA Sciences, and [FRSC 561](#) Forensic DNA Laboratory.

Course Notes

[FRSC 560](#) Advanced Forensic DNA Sciences and [FRSC 561](#) Forensic DNA Laboratory

Students shall have completed undergraduate coursework in molecular and/or cell biology, as well as genetics, or students must obtain permission of the instructor prior to taking [FRSC 560](#) Advanced Forensic DNA Sciences and [FRSC 561](#) Forensic DNA Laboratory.

[FRSC 540](#) Advanced Forensic Chemistry and [FRSC 541](#) Forensic Chemistry Laboratory

Students shall have completed undergraduate coursework in general chemistry including polarity and acid/base chemistry. Students shall also have completed Organic Chemistry and be able to identify functional groups and other chemistry structures that make up a molecule. Exposure to instrumental techniques such as gas chromatography, mass spectrometry and infrared spectroscopy is recommended or permission of instructor.

Degree Requirements:

Note: As of catalog publication in April, the program described below has been approved by the Board of Visitors and sent to the State Council of Higher Education in Virginia (SCHEV) for consideration as a new degree program. The university cannot accept applications or enroll students in this program until SCHEV approval has been granted. Check the school/department website for current program status.

Students should refer to the [Admissions & Policies](#) tab for specific policies related to this program.

Students must complete the program's core and internship course. Additionally, students must select one area of emphasis and one professional skills option.

Students are strongly encouraged to discuss course options with an advisor. All students must reach a minimum of 36 credits for degree conferral.

Core Courses

Course List

Code	Title	Credits
FRSC 510	Basic Crime Analysis	3
FRSC 511	Advanced Crime Scene Analysis	3
FRSC 515	Selected Topics in Forensic Science (When the topic is "Quality Assurance/Accreditation/Ethics in a Forensic Laboratory")	3
FRSC 530	Law and Forensic Science	3
FRSC 570	Trace and Physical Evidence Concepts	3

Required only for students without a bachelor's in forensic science:

[FRSC 500](#) Introduction to Forensic Science 1

Total Credits 15-18

1This course may extend the program's total credits past 36. The course must be taken in the first semester for students without a bachelor's in forensic science.

Emphasis Options

Choose one area of emphasis from the following:

Crime Scene Investigation Emphasis

Course List

Code	Title	Credits
Choose two from the following:		6
FRSC 512	Physical Evidence Laboratory	

Code	Title	Credits
FRSC 513	Forensic Photography	
FRSC 514	Survey of Forensic Chemistry, Biology, and DNA Analysis	
FRSC 516	Forensic Drone Photography	
FRSC 550	Issues in Forensic Anthropology	
FRSC 590	Medicolegal Death Investigation and Pathology	
Total Credits		6

Biometric Identity Analysis Emphasis

Course List		
Code	Title	Credits
Choose two from the following:		
FRSC 620	Face and Biometric Pattern Analysis	
FRSC 630	Fingerprint Identification	
FRSC 640	Legal, Privacy and Ethical Issues in Identity Analysis	
Total Credits		6

Forensic Biology Analysis Emphasis

Course List		
Code	Title	Credits
Choose two from the following:		
FRSC 514	Survey of Forensic Chemistry, Biology, and DNA Analysis	
FRSC 515	Selected Topics in Forensic Science (When the topic is DNA)	
FRSC 560	Advanced Forensic DNA Sciences	
& FRSC 561	and Forensic DNA Laboratory	
BIOL 509	DNA Analysis of Biological Evidence	
Total Credits		6-7

Forensic Chemistry Analysis Emphasis

Course List		
Code	Title	Credits
Choose two from the following:		
		6-7

Code	Title	Credits
FRSC 512	Physical Evidence Laboratory	
FRSC 514	Survey of Forensic Chemistry, Biology, and DNA Analysis	
FRSC 520	Toxicology	
FRSC 540	Advanced Forensic Chemistry	
& FRSC 541	and Forensic Chemistry Laboratory	
FRSC 570	Trace and Physical Evidence Concepts	
Total Credits		6-7

Professional Skills Options

Choose one professional skills option from the following¹, paying close attention to any course prerequisites:

Option One: Business Fundamentals Graduate Certificate

Code	Title	Credits
Course List		
<u>Complete the requirements for the Business Fundamentals Graduate Certificate and receive both the graduate certificate and the PSM upon completion of both programs' requirements.</u>		
		12
Total Credits		12

Option Two: Professional Preparation

Code	Title	Credits
Course List		
COS 600	Multidisciplinary Problem Solving and Leadership	3
or GBUS 551	Leadership	
GBUS 653	Organizational Behavior	3
MBA 712	Project Management 2	3
or GCH 691	Project Management in Public Health	

Choose one from the following: 3

COS 500	Professional Preparation for STEM Disciplines
COS 600	Multidisciplinary Problem Solving and Leadership (if not chosen above)
GBUS 540	Analysis of Financial Decisions
GBUS 551	Leadership (if not chosen above)
GBUS 613	Financial Reporting and Decision Making
GBUS 623	Marketing Management

Code	Title	Credits
<u>GBUS 643</u>	Managerial Finance	
<u>GBUS 738</u>	Data Mining for Business Analytics	
<u>GBUS 739</u>	Advanced Data Mining for Business Analytics	
<u>GBUS 744</u>	Fraud Examination	
<u>GCH 691</u>	Project Management in Public Health (if not chosen above)	
<u>MBA 712</u>	Project Management (if not chosen above)	

Or other courses in consultation with the faculty advisor.

Total Credits	12
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1 Students enrolled in the Forensic Science, PSM program are charged at a differential (premium) tuition rate regardless of the course; any professional skills courses taken will also be subject to the differential tuition rate.

2 MBA and GBUS-prefixed courses are offered on an alternative semester schedule (view the [Schedule of Classes](#) for details).

Internship

The internship component is intended to provide students with the opportunity to put into practice all of the skills and knowledge accumulated throughout their studies in this program. Students must arrange an internship with a private company, a governmental agency, a non-governmental organization, or some other entity with an interest in forensic science *and* management. Students must identify a specific person within that outside entity who will be the contact and manager of the internship.

Internship credit is never given for work previously done, or for work that would have been done in any case due to an existing employment relationship.

The internship work must produce one or more products such as a comprehensive report, a departmental presentation, a research project, or an article. Internship placement and product type must be approved by the student's faculty advisor.

Further details and procedures for completing the internship can be found with the faculty advisor.

Course List

Code	Title	Credits
<u>FRSC 790</u>	Internship in Forensic Science	3
Total Credits		3

**Retroactive
Requirements
Updates:**

Plan of Study:

Additional Program Information

Courses offered via distance (if applicable):

What is the primary delivery format for the program?
Both Face-to-Face and Distance

Does any portion of this program occur off-campus?
Yes

Off-campus details: The following courses are taught off site:
1. FRSC 520, 3 credits
2. FRSC 540, 3 credits
3. FRSC 541, 1 credit
4. FRSC 560, 3 credits
5. FRSC 561, 1 credit
6. FRSC 590, 3 credits

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

Please explain: The off site courses are taught at the Virginia Department of Forensic Science Laboratory.

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

Does this program cover material which crosses into another department?
Yes

Impacted Departments

Department
School of Business

Additional Attachments

SCHEV Proposal

Executive Summary

The Professional Science Master’s (PSM) in Forensic Science is proposed to be offered as a hybrid program (both online and in-class course offerings) taking advantage of the highly popular and in-demand forensic science course of study at George Mason University (Mason). The forensic sciences encompass many fields of physical, biological and social science including biology, chemistry, anthropology, psychology, statistics, mathematics, computing, etc., that deal with the intersection of science, technology, and the law. In common academic parlance “forensic science” most typically refers to the application of any recognized, quantifiable science to the evaluation of a material substance that exists physically or virtually that may be critical to a legal proceeding (for example, assessing the identity of an individual who is accused of a crime via molecular biological testing (e.g., DNA)). This program is designed to provide an advanced understanding of the applicable forensic sciences, human behavior, and best practices with respect to the criminal justice/legal system in tandem with professional and managerial skills.

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Reviewer Comments

Additional Comments

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

%wi_required.eshtml%