

# FORENSIC SCIENCE, M.S.

## Admission Requirements

### Admission Policy

Entrance into the Forensic Science Program is restricted to the fall semester only. Applicant materials should be submitted as early as possible for priority consideration for the fall term. The program observes a rolling admission policy so that individuals may apply at any time. Applicants will be considered for admission while openings remain available for the program. Students who apply early have a better chance of admission than those who apply later in the admission cycle; however, it is not uncommon for applicants to be notified throughout the year.

The complete application process includes:

1. Submission of the Marshall University graduate application available online at [www.marshall.edu/graduate/admissions/how-to-apply-for-admission](http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission) (<http://www.marshall.edu/graduate/admissions/how-to-apply-for-admission/>).
2. Completion of a Free Application for Federal Student Aid (FAFSA) as soon after January 1 as possible at [www.fafsa.gov](http://www.fafsa.gov) (<http://www.fafsa.gov>).
3. Submission of official transcript(s) documenting that the applicant has:
  - a. Completed a bachelor's degree in a forensic or natural science, computer science, computer electronic or electrical engineering, information systems or information technology (or its equivalent coursework in a relevant field) from an accepted, accredited institution of higher learning.
  - b. Achieved an overall Grade Point Average of 3.0 or better on a 4.0 scale.
  - c. Completed 1 academic year of biology and its associated labs with no grade of less than a C.
  - d. Completed 1 academic year of general chemistry and its associated labs with no grade of less than C.
  - e. Completed 1 academic year of organic chemistry and its associated labs with no grade of less than C.
  - f. Completed 1 academic year of physics and its associated labs with no grade of less than C.
  - g. It should be noted that successful completion of an undergraduate course in biochemistry is recommended, but not required, prior to entry into this program.
4. Graduate Record Exam (GRE)  
Applicants should achieve a score of 150 or higher on the verbal and quantitative sections and a score of 3.5 or higher on the analytical writing section.
5. Formal Letters
  - a. Applicant's personal statement providing reasons why he or she should be admitted to the Forensic Science program.
  - b. 3 letters of recommendation on formal letterhead from individuals familiar with applicants' moral character, academic acumen and aptitude, integrity, and work ethic.

Applicants who do not meet the minimum GPA and/or GRE requirements may be considered for provisional admission, at the

discretion of the program, when the capacity to admit provisional applicants exists. Full admission to the program, once an offer is made, is also contingent on successful completion of a background check, documentation of hepatitis B vaccination/titer or formal declination of vaccination, and receipt of other documentation required for enrollment.

## Early Assurance Pathway

The Marshall University Forensic Science Graduate Program Early Assurance Pathway allows incoming high school seniors and College of Science undergraduate students to apply for acceptance into the Master of Science in Forensic Science Program. Successful applicants will be guaranteed a seat pending completion of all undergraduate requirements, earning a natural science degree, and satisfying program pre-requisites.

### Admissions Requirements for Early Assurance

- Cumulative High School GPA of 3.5 on a 4.0 scale
- Three letters of reference/recommendation from high school or college teachers in STEM-related classes.
- Minimum composite ACT of 24 or SAT composite score of 1160
- Personal statement discussing why the student wants to pursue Forensic Science as a career.

### Continuing Requirements

- Students must declare an undergraduate major in a natural science.
- Students must maintain a 3.0 GPA each semester (students may fall below a 3.0 GPA for a maximum of one semester during their undergraduate degree), achieve an overall cumulative undergraduate GPA of 3.0.
- Students should receive a B or higher on the pre-requisite courses however they may receive no more than 3 C's in the following courses: biology 1 lecture & lab, biology 2 lecture & lab, chemistry 1 lecture & lab, chemistry 2 lecture & lab, organic chemistry 1 lecture & lab, organic chemistry 2 lecture & lab, physics 1 lecture & lab, and physics 2 lecture & lab. A grade of D or F in a pre-requisite course is not permitted. Prerequisite courses required may be completed through Advanced Placement (AP) prior to graduating high school.
- Students who are accepted to the Early Assurance program and meet the admissions requirements for progression into the MSFS will not have to take the GRE.

### Application Process

- Students must apply and be accepted to Marshall University prior to applying to the Forensic Science Graduate Program.
- Students must complete the Early Assurance application and submit supporting materials to MU MSFS Admissions Committee, 1401 Forensic Science Dr., Huntington, WV 25701.
- Application must include:
  - Online application form
  - Personal statement discussing why the student wants to pursue Forensic Science as a career
  - Official high school transcript
  - Official undergraduate transcript (if applicable)
  - ACT or SAT scores
  - Three letters of reference/recommendation from high school or college teachers in STEM-related classes

## Program Requirements

The FEPAC-accredited Master of Science degree in Forensic Science is a broad-science-based, five-consecutive semester curriculum. While all forensic science students are required to complete a research project, both thesis and non-thesis options are available.

**Thesis Option:** The thesis option stresses a research component where students conduct original research and prepare, as well as defend, a written thesis based on their investigative findings. The thesis option requires a minimum of FSC 685 Intro Research (3 credit hours) and FSC 681 Thesis (3 credit hours) in addition to the general Core Curriculum and a minimum of one Area of Emphasis. The thesis option often requires 1-2 additional semesters to complete. The students' research committee consists of a minimum of three working professionals or faculty skilled in the art with at least one external to the academic program. The students' thesis defense and presentation is in addition to the research project and associated activities described for the non-thesis option.

**Non-Thesis Option:** The research project associated with the non-thesis option is required of all forensic science students. Students electing the non-thesis option are required to successfully complete an applied research project during their summer internship which requires a research paper, as well as formal slide-based and poster presentations to be presented at regional or local meetings. The committee composition for the non-thesis option is similar to the thesis option.

## Areas of Emphasis

The Forensic Science Program offers four areas of emphasis that students may complete to enhance the core curriculum. The student is required to complete at least one area of emphasis but may complete up to four. Completing multiple areas of emphasis is contingent on maintaining good academic standing while enrolled in the program. Students may choose from the following four Areas of Emphasis:

### Crime Scene Investigation

The Crime Scene Investigation emphasis provides students with the tools and hands-on experience to excel and become leaders in their field. The Forensic Science program has its own Crime Scene House that allows students to obtain real-world experience and training through the completion of mock crime scene exercises.

### Digital Forensics

Computers and other digital devices hold a wealth of information including text, digital images, audio and video, which can serve as key evidence for solving crimes. Forensic software programs can be used to image digital storage media and the images can be analyzed using a variety of investigative software programs. Mobile phone forensics is an area that is emphasized in the forensic science courses, as well as investigation of computers and gaming devices. The opportunity to participate in hands-on experiences with investigative tools allows students to participate in mock investigations in preparation for careers in this exciting discipline.

### DNA Analysis

The Marshall University Forensic Science Center is home to the academic program as well as a service-oriented DNA laboratory. This lab also serves as the Combined DNA Index System (CODIS) for West Virginia. The DNA emphasis exceeds the DNA Advisory

Board standards by requiring a total of 8 graduate-level credit hours addressing the DNA guidelines.

## Forensic Chemistry

Students pursuing careers in forensic drug analysis, toxicology, and trace evidence will benefit from the completion of the Forensic Chemistry emphasis. As some agencies may require 30 or more hours of chemistry coursework, the Forensic Chemistry emphasis provides additional education and hands-on training to meet these federal and state guidelines.

## Other Requirements

In the third term, students are required to complete an approved research-based internship in a crime laboratory or other approved facility. In the fifth term, students are expected to pass a written, comprehensive examination.

## Plan of Study

### Core Curriculum

The core curriculum is required of all forensic science students to provide broad-based education and experience. The core curriculum includes:

Code	Title	Credit Hours
<b>Core Curriculum</b>		
FSC 604	Genetics & DNA Technology	3
FSC 606	Crime Scene/Death Investiga	3
FSC 612	Intro Foren Micro/Trace	2
FSC 618	Forensic Comparative Sciences	2
FSC 622	Forensic Analytical Chem	3
FSC 623	Forensic Chemistry Laboratory	1
FSC 624	Biochemistry: Forensic Science	4
FSC 630	Internship	5
FSC 632	Found Fund Digital Forensics	3
FSC 665	Legal Court in Forensic	3
FSC 680	Seminar (semesters 1, 2, 4, 5)	1
FSC 619	Forensic Statistics	3
Approved Elective		3
<b>Areas of Emphasis</b>		
Select from one of the Areas of Emphasis listed below		7-11
<b>Total Credit Hours</b>		<b>43-47</b>

### Areas of Emphasis:

Crime Scene Investigation (<http://catalog.marshall.edu/graduate/programs-az/science/forensic-science-ms/crime-scene-investigation/>)  
 Digital Forensics (<http://catalog.marshall.edu/graduate/programs-az/science/forensic-science-ms/digital-forensics/>)  
 DNA Analysis (<http://catalog.marshall.edu/graduate/programs-az/science/forensic-science-ms/dna-analysis/>)  
 Forensic Chemistry (<http://catalog.marshall.edu/graduate/programs-az/science/forensic-science-ms/forensic-chemistry-emphasis/>)

- Crime Scene Investigation, Emphasis (<http://catalog.marshall.edu/graduate/programs-az/science/forensic-science-ms/crime-scene-investigation/>)

- Digital Forensics, Emphasis (<http://catalog.marshall.edu/graduate/programs-az/science/forensic-science-ms/digital-forensics/>)
- DNA Analysis, Emphasis (<http://catalog.marshall.edu/graduate/programs-az/science/forensic-science-ms/dna-analysis/>)
- Forensic Chemistry, Emphasis (<http://catalog.marshall.edu/graduate/programs-az/science/forensic-science-ms/forensic-chemistry-emphasis/>)