

## Program of Study Leading to a B.S. in Forensic Science at John Jay

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### Course Descriptions

**The major in Forensic Science** is designed to provide academic and professional training for students seeking to work in forensic science laboratories, or who are planning to pursue careers as research scientists, teachers or medical professionals. The major draws primarily from chemistry (organic, analytical and physical) with courses in biology, physics and law. Students may specialize in one of three tracks: Criminalistics, Molecular Biology, or Toxicology.

**Some details:**

**First Three Years (Science Requirements)**

**Criminalistics Track**

**Toxicology Track**

**Molecular Biology Track**

*Credits required:* 73 or more depending upon the completion of prerequisites (if needed).

*Mathematics Requirement:* Two semesters of calculus ([MAT 241](#) and [MAT 242](#)) are required as well as one semester of probability and statistics ([MAT 301](#)). It is recommended that the MAT 241-242 sequence be completed as soon as possible since MAT 241 is a prerequisite for [PHY 203](#) and MAT 242 is a prerequisite for [PHY 204](#). Physics is placed in the sophomore year of the three-year common core for all Forensic Science majors.

*Advisor:* Professor Larry Kobilinsky, Department of Sciences (212.237.8884, [lkobilinsky@jjay.cuny.edu](mailto:lkobilinsky@jjay.cuny.edu)). Referrals will be made to advisors in each of the tracks within the major.

*Science Internship Directors.* Peter Diaczuk for forensic science laboratory internships (212.484.1176, [pdiaczuk@jjay.cuny.edu](mailto:pdiaczuk@jjay.cuny.edu)), Professor Ronald Pilette for research internships (212.237.8989, [rpilette@jjay.cuny.edu](mailto:rpilette@jjay.cuny.edu)).

*Additional information:* An internship is required for the forensic science degree. This can be fulfilled by either [FOS 401](#) or [FOS 402](#) (see course descriptions in Chapter 2 of the undergraduate bulletin). The internship requirement is to be completed after the junior year in the Forensic Science major progression. Certain courses are offered only in the fall semesters while others are offered only in the spring semesters. Consult the course descriptions or the designated advisor for proper program planning. Please note that certain courses have specific prerequisites that must be taken for timely progression through the major. The chemistry or biology taken in the freshman year of the Forensic Science major fulfills the science component of the general education requirements.

Students who enrolled for the first time at the College in September 2009 or thereafter must complete the major in the form presented here. Students who enrolled prior to that date may choose either the form shown here or the earlier version of the major. A copy of the earlier version can be obtained at the Office of Undergraduate Studies or at the Lloyd George Sealy Library.

*Prerequisite information:* To be placed into [BIO 103](#), students must have an SAT Verbal score of 520 or higher; or completion of the New York State Biology Regents with a score of at least 80%. Students who have not taken the New York State Biology Regents will need departmental permission. Students not meeting these criteria must complete the [BIO 101-102](#) sequence (or equivalent) in lieu of [BIO 103](#).

To be placed into [CHE 103](#), students must be eligible to take [MAT 141](#) or higher; or be taking [MAT 104](#) or [MAT 105](#) and have earned a score of 80% or higher on the New York State Chemistry Regents. Placement will be determined by the CUNY Mathematics Compass Exam. Students who did not take the New York State Chemistry Regents will need departmental permission. Students not meeting these criteria must complete the [CHE 101-102](#) sequence (or equivalent) instead of CHE 103. For physics prerequisites, see mathematics requirement noted above.

*Academic Standards/GPA Requirement:* Students must maintain a GPA of 2.0 or better in the science and mathematics courses of the major to qualify for progression to the sophomore- and junior- level courses in the major. Students not maintaining the necessary GPA will be dropped from the major. Students may request a waiver of this requirement by appealing to the department chairperson.

**Please note: the majority of courses required for the degree in Forensic Science are not available in the evening.**

### Science Requirements: First Three Years

#### Freshman Year

**Subtotal: 18 credits**

[Biology 103-104](#) Modern Biology I and II **or**  
[Biology 101-102](#) Paced Modern Biology I-A and I-B, **and**  
[Biology 104](#) Modern Biology II  
[Chemistry 103-104](#) General Chemistry I and II **or**  
[Chemistry 101-102](#) Paced General Chemistry I-A and I-B, **and**  
[Chemistry 104](#) General Chemistry II

#### Sophomore Year

**Subtotal: 23 credits**

[Chemistry 201-202](#) Organic Chemistry I and II  
[Chemistry 220](#) Quantitative Analysis

[Law 202](#) Law and Evidence  
[Physics 203-204](#) General Physics I and II

**Junior Year**

**Subtotal: 18 credits**

[Chemistry 302](#) Physical Chemistry II  
[Chemistry 315](#) Biochemistry  
[Chemistry 320-321](#) Instrumental Analysis I and II  
[Mathematics 301](#) Probability and Mathematical Statistics I

**CRIMINALISTICS TRACK**

**Subtotal: 14 credits**

**Junior year**

[Forensic Science 313](#) An Introduction to Criminalistics for Forensic Science Majors

**Senior year**

[Forensic Science 401](#) Forensic Science Laboratory Internship *or*  
[Forensic Science 402](#) Undergraduate Research Internship *and*  
[Forensic Science 415-416](#) Forensic Science Laboratory I and II

**TOXICOLOGY TRACK**

**Subtotal: 14 credits**

**Junior year**

[Toxicology 313](#) Toxicology of Environmental and Industrial Agents

**Senior year**

[Forensic Science 401](#) Forensic Science Laboratory Internship *or*  
[Forensic Science 402](#) Undergraduate Research Internship *and*  
[Toxicology 415](#) Forensic Pharmacology I  
[Toxicology 416](#) Analytical Toxicology II

**MOLECULAR BIOLOGY TRACK**

**Subtotal: 14 credits**

**Junior year**

[Biology 315](#) Genetics

**Senior year**

[Biology 412-413](#) Molecular Biology I and II  
[Forensic Science 401](#) Forensic Science Laboratory Internship *or*  
[Forensic Science 402](#) Undergraduate Research Internship

**Total: 73 credits**