So you want to be a Forensic Scientist?

What should you major in?
Crime labs are looking for people with a “hard science” background.
Preferred majors are Chemistry and Biology
DNA specialists must take: biochemistry, genetics, molecular biology and statistics
Accredited Forensic Science programs* require a minimum of:
   1 biology course, 4 chemistry courses, 2 physics courses—each with lab
   3 advanced science courses, 5 forensic science courses—most with lab

What about an advanced degree?
Regardless of degree, substantial job specific training after hiring is required
Many jobs require only a bachelors degree (very few accept lower educational levels)
All jobs will require continuing education with yearly minimum credits
Several schools offer a Masters degree in Forensic Science*
   NIJ recommends these schools require a BS in chemistry or biology to enter the program

Are the any other requirements?
The FBI sites “honesty, integrity and scientific objectivity” thus you will undergo a background check
   Including: drug tests, drug use history, criminal history, personal associations, driving record, credit history
   Disqualifiers: felony, failure of drug test, default on student loan, failure to register for selective service
Since you have to serve as an expert witness, excellent communication skills are required
Other “soft skills”: critical thinking, good and safe laboratory practices, time management, attention to detail

Is it like CSI?
NO.
Few forensic scientists actually go to crime scenes. None make arrests.
Most of their time is spent in the lab, usually doing routine experiments.
A significant amount of time is spent on paperwork, reporting on samples and validating results and equipment.
You must also serve as an expert witness where all your paperwork will be evidence.

What is the salary range?
Enter level positions start at about $35,000/yr (GBI)
High-level, prestigious, supervisory position can be as much as $150,000 (FBI)

References
*Accreditation is from American Association of Forensic Scientists (AAFS): http://www.aafs.org/ (Includes a list of accredited programs)
FBI Lab division http://www.fbijobs.gov/311143.asp#2 (Includes requirements for jobs)
Georgia Bureau of Investigation (GBI) homepage http://gbi.georgia.gov
   Crime lab page: http://dofs.gbi.georgia.gov/02/gbi/divison/0,2650,75166109,00.html
   (Includes various job types, and very general requirement, see actual job descriptions for more specific requirements)
National Institute of Justice (NIJ) Special Report on Education and Training in Forensic Science

Information courtesy of Georgia Regents University Chemistry and Physics Department
One Way of Meeting the Academic Requirements:

**Chemistry Major on the Forensic Science Track at Georgia Regents University**

Courses required by AAFS or NIJ are in Bold; Recommended courses are in italics

*Courses required for DNA Analysts

The schedule, as given, generally accounts for prerequisite courses.

### FRESHMAN YEAR

**Fall Semester**
- **CHEM 1211**—Principles of Chemistry I
- **MATH 1113**—Precalculus
- **ENGL 1101**—College Composition I
- **COMS 1100**—Human Communication
- **WELL 1000**—Wellness

15 Total

**Spring Semester**
- **CHEM 1212**—Principles of Chemistry II
- **MATH 2011**—Calculus I
- **ENGL 1102**—College Composition II
- Core E—social science
- **INQR 1000**—core requirement

15 Total

**Major Electives:**

Choose 2 CHEM, 1 BIOL; 1 non-science and other courses

for a minimum of 17 credit hours:

- **CHEM 3721** (Physical Chemistry I)
- **CHEM 3810** (Advanced Organic Chemistry)
- **CHEM 4210** (Advanced Inorganic Chemistry)
- **CHEM 4552** (Biochemistry II)
- **CHEM 3000** (Introduction to Nuclear Chemistry)
- **BIOL 3200** (Genetics)
- **BIOL 3350** (Histology)
- **BIOL 3210** (Human Genetics)
- **BIOL 3400** (Cell and Molecular Biology)
- **BIOL 3500** (Microbiology)
- **COMC 3100** (Communications for Professionals)
- **POLS 3301** (Judicial Process)
- **POLS 3302** (Judicial Process II)
- **CHEM 4990** (Undergraduate Research)

15-16 Total

### SOPHOMORE YEAR

**Fall Semester**
- **CHEM 3411**—Organic Chemistry I
- **PHYS 1111**—Introductory Physics I
- **BIOL 1107**—Principles of Biology I
- **HUMN 2001**—World Humanities I

15 Total

**Spring Semester**
- **CHEM 3412**—Organic Chemistry II
- **PHYS 1112**—Introductory Physics II
- **BIOL 1108**—Principles of Biology II
- **CHEM 3000** (Introduction to Nuclear Chemistry)
- **HUMN 2002**—World Humanities II

15 Total

### JUNIOR YEAR

**Fall Semester**
- **CHEM 4551**—Biochemistry I
- **CHEM 4100**—Forensic Chemistry
- **CHEM 3820**—Lab Management & Safety
- Major Elective 1
- Core E—social science

15-16 Total

**Spring Semester**
- **CHEM 2810**—Quantitative Analysis
- **CHEM 4553**—Biochemistry Lab
- Major Elective 2
- Core E—social science
- WELL activity

13-14 Total

**Major Elective:**

Choose 1 CHEM, 1 BIOL; 1 non-science and other courses

for a minimum of 17 credit hours:

- **CHEM 3721** (Physical Chemistry I)
- **CHEM 3810** (Advanced Organic Chemistry)
- **CHEM 4210** (Advanced Inorganic Chemistry)
- **CHEM 4552** (Biochemistry II)
- **CHEM 3000** (Introduction to Nuclear Chemistry)
- **BIOL 3200** (Genetics)
- **BIOL 3350** (Histology)
- **BIOL 3210** (Human Genetics)
- **BIOL 3400** (Cell and Molecular Biology)
- **BIOL 3500** (Microbiology)
- **COMC 3100** (Communications for Professionals)
- **POLS 3301** (Judicial Process)
- **POLS 3302** (Judicial Process II)
- **CHEM 4990** (Undergraduate Research)

15-16 Total

### SENIOR YEAR

**Fall Semester**
- **CHEM 4700**—Integrated Lab
- Major Elective 3
- Major Elective 4
- **MATH 2210**—Statistics
- WELL activity

13-15 Total

**Spring Semester**
- **CHEM 4840**—Instrumental Analysis
- **CHEM 4800**—Seminar
- Major Elective 5
- Major Elective 6
- Core E—social science

14-16 Total

Additional 2-8 hours of free electives required for total 124 hours for the degree.

Total Hours: 124 (includes 4 hours of WELL)

Information courtesy of Georgia Regents University Chemistry and Physics Department