**Potential Careers**

NMU’s Forensic Biochemistry Program prepares students for employment in the following careers (some may require additional education):

- Biological Researcher
- Criminalists
- Forensic DNA Analyst
- Forensic Scientist
- Lab Analyst
- Physical Anthropology

**Job Outlook**

The starting salary is dependent on the above factors and individuals should contact the specific laboratory that they are interested in. Salaries for Crime Laboratory Analysts vary from region as well as position. The starting salary is generally around $30,000. Analysts with many years of experience may make $60,000-$70,000. Job outlook will be steady with the possibility of expanded growth.

**Additional Resources and Info**

**For Career Planning and Opportunities:**
Academic & Career Advisement Center  
3302.1 C.B. Hedgcock  
906-227-2971  
[www.nmu.edu/acac](http://www.nmu.edu/acac)

Chemistry Department  
3301 New Science Facility  
906-227-2911  
[www.nmu.edu/chemistry](http://www.nmu.edu/chemistry)

**For Job Search, Resume and Career Information:**
Career Services  
302.3 C.B. Hedgcock  
906-227-2800  
[www.nmu.edu/careers](http://www.nmu.edu/careers)

**For Information about NMU Student Organizations Associated with this Major Contact:**
Center for Student Enrichment  
1206 University Center  
906-227-2439  
[www.nmu.edu/cse](http://www.nmu.edu/cse)

Forensic Biochemistry Club;  
(on Facebook as “NMU Chemistry Club”)  
Tri Beta Biological Honor Society

**Internet Resource Links:**
[www.careers.org](http://www.careers.org)  
[www.careerresource.net](http://www.careerresource.net)  
[www.bls.gov/oco](http://www.bls.gov/oco)  
Occupational Outlook Handbook

**For Career Information with National Organizations:**
[www.aafs.org](http://www.aafs.org)  
American Academy of Forensic Science  
[www.asbmb.org](http://www.asbmb.org)  
American Society for Biochemistry and Molecular Biology  
[www.biochemistry.org](http://www.biochemistry.org)  
Biochemical Society

Current as of Fall 2015  
Provided by:  
*The Academic & Career Advisement Center*
Biochemistry

Forensic Biochemistry

Do you enjoy science and logic? Are you persistent and curious and ready to work when and where you are needed? If so, forensic biochemistry may be the field for you.

Biochemistry is the chemistry of life. Forensics involves applying science to answer legal questions. Often this relates to crime, but not always. Forensic biochemists may be asked to trace the origin of a particular substance, determine paternity or relatedness of humans or animals, or track the spread of disease. Forensic biochemistry is a challenging yet rewarding career. One needs to be honest and ethical to serve the profession well, and also have patience and a keen eye for details.

The majority of forensic crime laboratories in the U.S. are publicly operated. The laboratories may be part of the federal, state, county, or local government. There are also a number of private laboratories that operate independently, are associated with universities, or are under contractual agreements with government agencies.

Skills and Competencies

The Forensic Biochemistry major at NMU is a competitive program that gives you the opportunity to become acquainted with several subjects. Along with the required biology and chemistry classes, you will also need math and criminal justice courses. Students of forensic biochemistry need to be careful followers of the scientific method with a patient and thorough work ethic. Being able to do scientific experiments is one aspect in a forensic biochemistry career, but just as important is being able to analyze and interpret data.

Course Work

This degree includes the following courses as part of the program requirements, and specific major requirements along with liberal studies and graduation requirements.

Chemistry Core
CH 111 General Chemistry I (5 cr.),
CH 112 General Chemistry II (5 cr.),
CH 241 Chemical Equilibrium (3 cr.),
CH 242 Quantitative Equilibrium (2 cr.),
CH 321 Organic Chemistry I (4 cr.),
CH 322 Organic Chemistry II (4 cr.),
CH 435 Gas and Liquid Chromatography (2 cr.),
CH 440 Forensic Chemistry (4 cr.),
CH 450 Biochemistry I (4 cr.)

Other Required Courses
BI 111 Introductory Biology: Principles (4 cr.),
BI 203 Medical Microbiology (3-5 cr.),
BI 303 General Microbiology (5 cr.),
BI 218 Introduction to Cell and Molecular Biology (4 cr.),
BI 312 Genetics (4 cr.),
BI 418 Molecular Biology (4 cr.),
CJ 110 Introduction to Criminal Justice (4 cr.),
CJ 214 The Investigative Process I (4 cr.),
MA 161 Calculus I (4 cr.),
MA 171 Introduction to Probability and Statistics (4 cr.),
PH 220 Introductory Physics I (5 cr.) or PH 201 College Physics I (5 cr.),
PH 221 Introductory Physics II (5 cr.),
PH 202 College Physics II (5 cr.)

Electives (17 cr.)
Choose from a list of courses within the Biology, Chemistry, Criminal Justice, Mathematics, Philosophy, and Political Science programs. Courses are predetermined.

Detailed course descriptions can be found at www.nmu.edu/bulletin.

Career Development

You should begin the resume-building process as soon as you can. The Academic and Career Advisement Center can assist you with career planning, while Career Services will help you fine tune your resume and look for jobs related to your field.

Additional Considerations

In the meantime, the more hands-on experience you have, the better the chances are that you will find a job. Participating in a faculty-led research project is the best way to gain practical experience on campus. We have two research courses, CH 490 and CH 491, which allow you to earn college credit towards your degree while gaining hands-on experience. Becoming involved in a career-related internship is another way to develop your professional skills and gain experience. The academic advisors in Chemistry will help to find you a suitable laboratory internship position and you can earn credits for your degree in most cases. The department hires student workers for its chemical stockroom—another way one can gain practical experience and also earn money for school. There is an active Forensic Biochemistry club which is involved in K-12 outreach activities as well as other career preparation events. Finally, your academic course work is important as well, so be sure to maintain a high grade point average.

Criminalists work in forensic laboratories in the public or private sectors. The criminalist may start as a bench scientist and work up to forensic laboratory director or professor at community colleges and universities.

The field of forensic anthropology encompasses archaeology and physical analysis/comparisons of primarily skeletal remains. Students wishing to gain background training for this field should consider courses in statistics, archaeological field methods, human anatomy, and skeletal biology.