

A GUIDE TO NUHS' BIOMEDICAL SCIENCE DEGREE PROGRAM





Introduction to Biomedical Science

We created this guide for those of you who are considering pursuing a degree in biomedical sciences. You have a lot to think and learn about before you decide if, when, and where, to pursue such a degree. This guide was created to bring you real insight into exploring NUHS' Biomedical Science degree program and the careers available to those with a biomedical science degree. This guide will be divided into three main sections:

Why do students choose to major in this field?

Students usually choose to study biomedical sciences for one of the following reasons:

1. As preparation for an advanced health care degree. Biomedical science puts you on the path toward a career in health care, and while you're completing your degree, you can continue to explore your next health care move. NUHS gives you the option of combining your BS degree with a graduate degree in [chiropractic medicine \(DC\)](#), [naturopathic medicine \(ND\)](#) and [oriental medicine \(MSOM\)](#), and [acupuncture \(MSAc\)](#). Other graduate degree options include: Master's in Public Health, degree in traditional Western medicine (MD), dentistry, optometry, or other health speciality.
2. As the precursor to a career in research or lab work as a biomedical scientist.
3. As a jumpstart towards other exciting jobs in the scientific field.

About National University of Health Sciences

Founded in 1906, National University of Health Sciences (NUHS) is a leader in the growing field of integrative medicine and is respected worldwide for success in balancing healing arts and science, combining broad-scope integrative medicine with patient-centered care. With campuses in Illinois and Florida, the university offers programs in chiropractic medicine, naturopathic medicine, acupuncture, oriental medicine, massage therapy, and biomedical science.

NUHS is an established champion of high admission standards, accreditation, and academic excellence for its professions. That's why students from across the globe choose NUHS to pursue higher education in health care.

What are the benefits to pursuing a formal degree in Biomedical Science?

One of the advantages of a BS degree is that it combines basic science courses such as microbiology, physiology, chemistry, and anatomy with medical school courses like pathology, nutrition, immunology, epidemiology, and pharmacology. Some programs even allow you to build your own curriculum by choosing the kinds of courses you want to focus on, thus personalizing your degree.

Introductory courses in BS allow for exploration and consideration of various health care careers, meaning that you don't have to box yourself in to a specialty before you know exactly what you want to pursue as a career. Studying biomedical science also provides beneficial knowledge and understanding for other positions in health care or lab science, even if you decide not to pursue further studies after completing your undergraduate degree.

Completing the BS degree on the NUHS campus grants you several advantages. Given that National University is an health sciences institution, our students are able to study with graduate level faculty in graduate level facilities. In addition to this, students have the opportunity to gain exposure and interact with other health sciences programs and students.

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Career Outlook with a Biomedical Science Degree

You might be surprised by the variety and number of [career and continuing education opportunities](#) available to someone with a BS degree. According to the [Bureau of Labor Statistics](#), health care support occupations (23.6 percent) and health care practitioners and technical occupations (15.3 percent) are projected to be among the fastest growing occupational groups from 2016–2026. This increased demand for health care services is attributed to factors such as the aging baby-boom population, longer life expectancies, and growing rates of chronic conditions.

Upon graduation, many students pursue a graduate health science degree. NUHS gives you the option of combining your BS degree with a graduate degree in [chiropractic medicine \(DC\)](#), [naturopathic medicine \(ND\)](#), [oriental medicine \(MSOM\)](#), and [acupuncture \(MSAc\)](#).

Aside from pursuing a graduate health sciences degree, we've listed just a few of the potential occupations to give you a sense for just how versatile biomedical science is.



Forensic Technologist

In order to provide impartial evidence and testimony regarding crimes to legal officials, [forensic technologists](#) need to be well-versed in analysis of bodily fluids, DNA, hair, etc. A biomedical sciences degree prepares you to study and practice forensic science because of the wide range of course offerings, including anatomy, physiology, and human genetics. The average pay for a forensic scientist/technologist is currently \$57,850 per year, with a predicted job growth of 17% in the next 10 years, which is much higher than average ([Source](#)).



Science Journalism

Do you have a gift for writing as well as a passion for science? Consider using your biomedical science degree to pursue a career in science journalism, where you will be asked to communicate complex scientific information, discoveries, and other news to the general public. Median pay for writers/authors is currently \$61,820 per year, with a job growth rate of 8%, which is consistent with the overall average job growth rate in the U.S. ([Source](#)).



Science Museum Curator/Educator

While some biomedical science graduates go on to teach high school or pursue a graduate degree in order to teach at the college level, did you know that a BS degree equips you to do something as unique as curate a science museum? If you go on to complete your Masters degree in a scientific field, you could have the opportunity to earn a median salary \$47,360 per year, in a field that has a projected 13% growth rate over the next ten years, which is faster than average ([Source](#)).



Pharmaceutical Sales

Pharmaceutical sales representatives don't just sell medicine, they teach prospective customers (usually physicians, nurse practitioners, etc.) about the scientific properties of various drugs, how they function in the body, and how they effectively treat illness. In short: they need to understand the science behind the products they sell, so a biomedical sciences degree is the perfect precursor to what can be an extremely lucrative sales career. The median salary for a person working in this type of sales is \$60,340 per year, with a predicted job growth of 5%, which is consistent with the average job growth in the U.S. ([Source](#)).



Careers Available With Additional Advanced Degree

Of course, some biomedical science grads choose to go on to further study in the biomedical field. Because of the breadth and depth of the coursework, this degree is an excellent foundation for advanced degrees in traditional medicine, dentistry, [biomedical engineering](#), [toxicology](#), [epidemiology](#), and alternative/complementary medical fields such as [naturopathic medicine](#) and [chiropractic medicine](#).

Something else to keep in mind when considering a biomedical science degree: According to the [Georgetown University Center on Education and the Workforce Completion Program](#), people who graduate with a STEM bachelor's degree earn \$500,000 more in their lifetime than non-STEM majors. While there is currently a disproportionately small number of [women in STEM degrees](#) nationwide, at NUHS we pride ourselves on the fact that we graduate a higher proportion of females compared to males—an impressive 58%—in our biomedical sciences program.





About NUHS' Bachelor of Biomedical Science

National University is unique in that it is designed particularly for students who already have a few of years of undergraduate education under their belts. The program is not your typical four year undergraduate degree, rather it is designed for students looking to finish their degree. Students complete general education credits elsewhere and then come to National University to complete the upper level science coursework. You can earn a Bachelor of Biomedical Science degree in as little as 16 months of convenient evening classes.

Because NUHS is passionate about students from different fields of study interacting with one another, learning from each other, and sharing access to graduate level facilities and faculty, you will be better prepared for a career or to pursue an advanced degree in medicine or science.

The 124-credit-hour Bachelor of Science in Biomedical Science Program provides a solid foundation in the basic sciences in courses such as microbiology, physiology, chemistry, and anatomy. There are also medical school courses such as pathology, nutrition, immunology, epidemiology, and pharmacology.

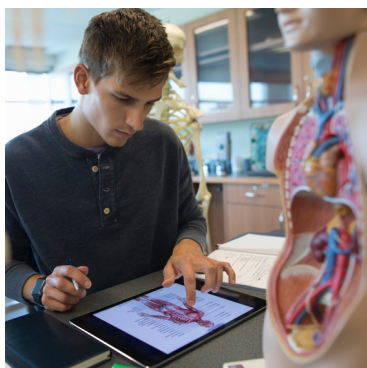
What makes this program unique compared to other Biomedical Science programs?

1. Unique Course Activities



Exercise Physiology

In this course, you'll have the opportunity to study what happens to the human body during exercise. It combines metabolic biochemistry, cellular and organ system physiology, as well as anatomic structure and function in order to understand and explain physical and athletic performance and how the body adapts to it.



Kinesiology

Kinesiology is the study of the physics of the human body: how the body functions when it is in motion. In a kinesiology course at NUHS, you'll learn which muscles are active in what types of movements, how they coordinate together, which muscles contract and which muscles lengthen when you step forward, and how these different actions stabilize each other.



Nutrition

At NUHS, you have the opportunity to take courses in nutrition as part of your biomedical science degree. This is especially valuable if you're considering a career in patient care—such as naturopathic medicine, nursing, chiropractic medicine and osteopathic medicine, or careers in science education, food science, nutrition, or public health.

For additional career ideas visit the [Future of Integrative Health blog](#).

2. Ability to Design Your Own Curriculum

National University offers the opportunity to take a variety of [on campus courses](#) and [online courses](#), so if you are working part or full time while getting your degree, you'll have much more convenience and flexibility than in a traditional bachelor's program.

3. Medical School Faculty and Facilities

National University prides itself on providing a campus that helps [students excel](#). Our facilities include:

- Top of the line [gross anatomy lab](#) where students learn human anatomy through observation of full-cadaver dissection.
- Life-size 3-D interactive [Anatomage Table](#) offers students, faculty, and clinicians access to an advanced digital visualization system to augment anatomy education.
- Biochemistry lab where students learn basic sciences using latest equipment and technology.
- A comprehensive [Learning Resource Center](#), one of the largest medical libraries in the area that houses a huge collection of books, print and electronic journals, ebooks, bibliographic databases, and more.
- [Whole Health Center](#) clinic on campus where BS students can receive complementary care as students and where they may intern if they pursue a first professional program (chiropractic, naturopathic or oriental medicine or acupuncture) at NUHS. The clinic is a comprehensive facility which also houses a massage therapy clinic, hydrotherapy suite, and herbal dispensary.

4. Collaborative Learning

National University is unique in that it offers a campus dedicated to integrative medicine and collaborative learning. You'll study and work alongside students and faculty from its chiropractic medicine, oriental medicine, acupuncture, naturopathic medicine, and massage therapy programs. In addition, the NUHS on-campus clinic houses an MD practice giving students exposure to a wide variety of medical careers they might pursue post-graduation.

Additionally, as one of only two schools in the U.S. to offer programs in chiropractic medicine, naturopathic medicine, acupuncture, oriental medicine, and massage therapy all on one campus, our students have a rare opportunity to earn [multiple degrees](#) and save both time and money in the process.

5. Advanced Scholars Program

Speaking of earning multiple degrees, if you distinguish yourself in biomedical science at NUHS, you may qualify for early entry into the [doctor of chiropractic](#) or [doctor of naturopathic medicine programs](#) through our [Advanced Scholars Program](#). This means that you can finish the last year of your BS degree while enrolled in the first year of your DC or ND program. The science courses you'll take in your first year of graduate school will be applied toward your BS program--meaning you'll save both time and money.

6. Veteran Benefits

Through NUHS' [Yellow Ribbon](#) program, [students who are veterans](#) can receive financial assistance which covers any remaining tuition not already covered under the Post-911 GI Bill.

7. Ideal Location

National University offers its biomedical science program in suburban Chicago, just one hour from the city by train. With its number of hospitals, clinics, and universities, Chicago is an excellent city to begin a career in science or medicine.



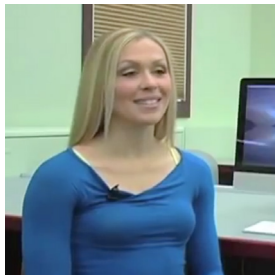
NUHS Student Testimonials

Students have many reasons for pursuing a degree in biomedical science. Here are a few statements from NUHS students explaining their reasons for doing so. If you want more information from our students' perspective, check out their [blogs](#).



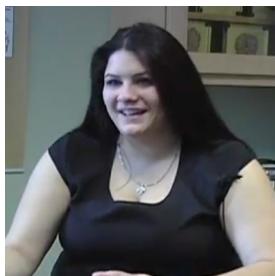
Greg Swets

"You're always being taught by a doctor or by a professor -- someone who specializes in the field you're going into. You're never being taught by a TA or a grad student. It's always someone who is a professional in the field you're going into. And that, to me, is very valuable."



Crystal Stewart

"One of the benefits here in the bachelor's program is you can tailor it to fit your needs. If you want to focus more towards biology, you can. If you want to focus more toward the physical sciences, you can."



Konstantina Adams

"You're being taught by professors who actually care and who are part of the field that you are eventually going into. I've been taught by chiropractors, I've been taught by naturopaths... people who are passionate about what they're teaching."



Bianca Page, a graduate

"I would have to say that biochemistry and anatomy were my favorite classes in the BS program. Anatomy gave me my first encounter working with cadavers, while biochemistry challenged the way I saw science. Both contributed to my love for nutrition, physical therapy, and the importance of maintaining overall wellness."

"With a bachelor's degree in biomedical sciences, you can pursue a number of lucrative career paths in the fields of health care and science. No matter what your plans are, NUHS deans like myself work with students one-on-one to ensure they are on the right path to achieving their goals."

**- Dr. Cambron, NUHS Dean, College of Allied Health Sciences
and Distance Education**



What are the traits of a successful biomedical science student at NUHS?



Aptitude for science

A curious mind and an interest in problem-solving will help you succeed in a biomedical science program. It will also give you the ability to pursue further study in the sciences or medicine, if that is your goal. Obtaining a BS degree can easily be used as a gateway to working in many fields, such as education, research, sales, medical practice and institutional work.



Excellent work ethic

You must be willing to do the work required for a rigorous science program. Time management and study skills will serve you well as a biomedical student, especially if you are working and going to school, as most of our biomed students do.



Passion for health care or medical science

A degree in biomedical science serves as an excellent foundation for a career in medical science or an advanced health care degree. Students should be interested in working in the health sciences or pursuing a professional degree. At NUHS, students can combine their BS program with an advanced degree in chiropractic, naturopathic or acupuncture and oriental medicine.

Questions Regarding the Application Process

GPA and Prerequisites

Students interested in pursuing a Bachelor of Science degree are required to have completed a minimum of 60 semester hours (90 quarter hour credits), including the following specific prerequisites:

- 6 semester hours in English
- 3 semester hours in Speech/Public Speaking
- 9 semester hours in Social Sciences (courses may be taken from the following areas: anthropology, economics, history, political science, psychology, and sociology)
- 9 semester hours in Arts/Humanities (courses may be taken from the following areas: language, history, literature, philosophy, religious and cultural studies, performing arts, e.g. music/dance/theater appreciation or history, or visual arts e.g. art appreciation, film studies)
- 3 semester hours in Psychology
- 30 elective semester hours in any general education, liberal arts, life or physical science.

What if I don't have all the prerequisites?

Even if you think you don't have everything needed to apply to the biomedical science program, call an admissions counselor to consider your options. They may be able to help!

What documents will be required?

- An online or paper application and submit a \$55 application fee
- All official college transcripts

When should I apply?

As soon as possible! NUHS uses a trimester system, so there are three times of year during which you can apply. Our typical application deadlines are the first day of the month prior to the term start, unless the class is at capacity. [Current deadlines](#) are listed on the NUHS website.

How important is visiting the campus?

Since many students will go on into NUHS' professional programs, they will be spending years on the NUHS campus and should understand the facilities and surrounding area. Additionally, many students live on campus, so seeing residential living is helpful. Also it is important to understand that this is not a traditional undergraduate campus with typical facilities such as athletics, but rather one dedicated to health science with impressive labs and clinics.

Understanding the Real Cost of This Program

Although your personal expenses may vary, the cost of the tuition of the biomedical science program is about \$25,000, plus books and fees. We know that most students will need some sort of financial aid when coming to NUHS, and our financial aid office is here to help you figure out what type of aid is best for you.

Types of Financial Aid

Even if you think you don't have everything needed to apply to the biomedical science program, call an admissions counselor to consider your options. They may be able to help!



Loans and Grants

[Loan programs:](#) The primary source of financial aid obtained by National University students is federal student loans. NUHS participates in the [Federal Direct Loan Program](#) whereby students borrow these federal loans through the U.S. Treasury. Credit-Based Private Loans are also available and are exactly what they sound like: [non-government loans](#) that are issued by banks, credit unions, or other financial companies. Unlike federal loans, private lenders offer both [fixed and variable interest rate loans](#).

[Grant programs:](#) Unlike loans, grants are only given to those students who are in the greatest financial need. Examples include the Pell Grant, Federal Supplemental Educational Opportunity Grant (FSEOG), and the Illinois State Grant Monetary Award Program (MAP).



Scholarships

[Scholarships](#): Some students may qualify for certain scholarships, such as:

ΦΘΚ

[Phi Theta Kappa Scholarship](#)

National University has recently established a scholarship fund for Phi Theta Kappa community college honor students. The scholarship is available to PTK members who choose to enroll in the university's bachelor degree completion program in the biomedical sciences.



[University Scholarships for Incoming New Students](#)

National University offers several types of scholarships to students of all programs. Some scholarships reward academic achievement, some programs recognize Illinois residents or children of alumni, and other programs assist minority and international students.



[Institutional Scholarships for Current NUHS Students](#)

National University is proud to offer institutional scholarships, many of which are awarded each trimester. These special scholarships are made possible by the many friends, alumni, and supporters of the University. Each scholarship has different criteria and may be awarded based on an evaluation of a student's financial need, academic achievement, character, extracurricular participation, or special area of interest.



[Ethnic and Minority-Based Scholarships](#)

These scholarships are designed to assist financially needy, academically competitive students who are identified as members of certain ethnic and minority groups.



Additional Resources for Aspiring Professionals in Biomedical Sciences

If you're interested in learning more about biomedical science, the program at NUHS, or our students' experience, we encourage you to check out our Biomedical Science [Blog](#).

[Check Out Our Blog](#)

Other resources we suggest:

The [ScienceMag careers section](#) and the [American Institute of Biological Sciences - Careers](#) so you can learn more about the many different career paths you can pursue with a biomedical science degree. AIBS even has a [Facebook group](#) you can join to chat with other aspiring biomedical students.



**Fun Phone Apps for
Biomedical Science
Students**

[Read Post](#)



**How to Choose a Science
Career and Set Goals**

[Read Post](#)

Contact Us

The team at National University hopes that this guide was helpful as you discern if, when, and where, to pursue a Bachelor of Science in Biomedical Science.

Please do not hesitate to reach out to us if you have any questions about our programs or the student experience.

For more information about integrative medicine and the programs offered by National University, contact the Office of Admissions

Phone: 1-800-826-6285

admissions@nuhs.edu