

# BROOKLYN COLLEGE

# PRE-HEALTH PROGRAM HANDBOOK

Updated and Simplified Version Fall 2025

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# WELCOME TO THE PRE-HEALTH PROGRAM AT BROOKLYN COLLEGE!

Are you considering a career in health, like medicine, dentistry, pharmacy, or physical therapy? The Pre-Health Professions Advisement Office at Brooklyn College is here to help you succeed! We offer guidance on everything from choosing the right classes to applying for professional schools, like medical or dental school, without limiting your choice of major. In this handbook, you will find:

- **pre-health pathways:** a breakdown of popular health career options and the recommended courses for each;
- **prerequisite planning:** a guide to the essential science and non-science courses required for admission to professional schools;
- **timeline for success:** tips on when to take certain courses, prepare for entrance exams, and complete other important milestones; and
- **additional resources:** information on extracurricular activities, internships, and volunteer opportunities to strengthen your application.

## IMPORTANT UPDATES ON COURSE REQUIREMENTS

If you're aiming for a career in health, you'll need to know about recent updates to the requirements for math, chemistry, and physics:

- 1. Math:** A new course, MATH 1006 (College Algebra), is required if you're not ready for MATH 1011 (Precalculus).
- 2. Chemistry:** Since fall 2021, chemistry courses have been split into separate lecture and lab components.
- 3. Physics:** You now need a grade of B or higher in Precalculus to enroll in Physics 1100.

Check with your adviser for more details and make sure you're on the right path!



# WHAT DO I NEED FOR MEDICAL, DENTAL, AND OTHER HEALTH PROGRAMS?

Most health professions (like medicine, dentistry, or veterinary medicine) have similar class requirements. Here's a quick look at what you'll need:

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## Medicine (MD/DO)

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
CHEM 2200 and CHEM 2201
- **One semester of Pre–Organic Chemistry**  
(taken with CHEM 2200 or prior to taking Organic Chemistry 1)  
CHEM 2110 Principles of Chemical Reactivity
- **One year of Organic Chemistry (lecture and lab)**  
CHEM 3511 and CHEM 3512  
CHEM 3521 and CHEM 3522
- **One year of Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **One year of Physics**  
PHYS 1100 General Physics 1  
PHYS 2100 General Physics 2
- **Math (Precalculus or Calculus)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
MATH 1201 Calculus 1
- **One year of English Composition**  
ENGL 1010 English Composition 1  
ENGL 1012 English Composition 2

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## Dentistry

- Very similar to medicine, but some schools also require courses like Anatomy, Physiology, and Microbiology.

*Highly Recommended Courses for Premedical and Pre dental Students*

The following courses are not required for admissions to medical or dental schools, but are strongly suggested because they incorporate topics tested on the MCAT and DAT entrance examinations:

**BIOL 2010** Advanced Cell and Molecular Biology

**CHEM 4570** Biochemistry 1 (lecture and lab) 5 credits or  
**CHEM 4571** Biochemistry 1 (lecture) 3 credits

**CHEM 4581** Biochemistry 2

**ECON 3400/BUSN 3400** or **PSYC 3400** or  
**HNSC 3300** statistics

**HNSC 2120** Introduction to Epidemiology (with lab)

**HNSC 2300** Human Physiology (lecture)

**HNSC 2302** Human Anatomy and Physiology 1  
(lecture and lab)

**HNSC 2303** Human Anatomy and Physiology 2  
(lecture and lab)

**BIOL 3003** Microbiology and **BIOL 3004** Microbiology Lab

**PHIL 3316** Medical Ethics

**PSYC 1000** Introduction to Psychology

**PSYC 2100** Social Psychology

**PSYC 2810** Psychological Disorders

**SOCY 1101** Introduction to Sociology or **ANTH 1100**  
Culture and Society (to better understand the various socioeconomic populations and disparities that exist among them)

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## Pharmacy

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
CHEM 2200 and CHEM 2201
- **One semester of Pre–Organic Chemistry**  
(taken with CHEM 2200 or prior to taking Organic Chemistry 1)  
CHEM 2110 Principles of Chemical Reactivity
- **One year of Organic Chemistry (lecture and lab)**  
CHEM 3511 and CHEM 3512  
CHEM 3521 and CHEM 3522
- **One year of Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **One year of Physics**  
PHYS 1100 General Physics 1  
PHYS 2100 General Physics 2
- **Math (Precalculus or Calculus)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
MATH 1201 Calculus 1
- **One year of English Composition**  
ENGL 1010 English Composition 1  
ENGL 1012 English Composition 2
- **Economics (Micro or Macro)**  
ECON 2100 Elementary Macroeconomics  
-OR-  
ECON 2200 Elementary Microeconomics
- **Speech**  
CASD 1707 Public Speaking

## OTHER PROGRAMS

Each health program has specific requirements, so check with your adviser to ensure you're meeting all the necessary prerequisites!

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### Physician's Assistant

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
CHEM 2200 and CHEM 2201
- **One semester of Pre–Organic Chemistry**  
(taken with CHEM 2200 or prior to taking Organic Chemistry 1)  
CHEM 2110 Principles of Chemical Reactivity
- **One year of Organic Chemistry (lecture and lab)**  
CHEM 3511 and CHEM 3512  
CHEM 3521 and CHEM 3522
- **One year of General Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **Microbiology (lecture and lab)**  
BIOL 3003 Microbiology  
BIOL 3004 Microbiology Lab
- **One year of Anatomy and Physiology**  
HNSC 2302 Human Anatomy and Physiology 1 (lecture and lab)  
HNSC 2303 Human Anatomy and Physiology 2 (lecture and lab)
- **Psychology (Intro and any other 3-credit psychology course)**  
PSYC 1000 Introduction to Psychology
- **Math/Statistics (Precalculus and Statistics)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
ECON 3400/BUSN 3400  
-OR-  
PSYC 3400 or HNSC 3300 statistics
- **One semester of medical ethics or medical terminology**  
PHIL 3316 Medical Ethics

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## Occupational Therapy (OT)

Occupational therapists help people regain skills after an illness or injury. You'll teach patients the "skills for living," helping them live fuller, independent lives.

### What You'll Need:

- **One semester of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201
- **One year of Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **One year of Anatomy and Physiology**  
HNSC 2302 Human Anatomy and Physiology 1 (lecture and lab)  
HNSC 2303 Human Anatomy and Physiology 2 (lecture and lab)
- **Psychology (Intro and any other 3-credit psychology course)**  
PSYC 1000 Introduction to Psychology
- **Sociology or Anthropology (Any 3-credit course in the sociology or anthropology departments will satisfy this requirement; the courses below are suggestions.)**  
SOCY 1101 Introduction to Sociology  
-OR-  
ANTH 1100 Culture and Society
- **Math/Statistics (Precalculus and Statistics)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
ECON 3400/BUSN 3400 Introduction to Economic and Business Statistics  
-OR-  
PSYC 3400 Statistical Methods in Psychological Research  
-OR-  
HNSC 3300 Introduction to Biostatistics for the Health Sciences

*In order to be a more competitive applicant for OT programs, it is highly recommended that a pre-OT student take HNSC 4200W Physiology of Exercise, followed by HNSC 4402 Fitness Assessment and Exercise Prescription.*

**PRO TIP: Volunteer in clinical settings to get hands-on experience with patients!**

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## Physical Therapy (PT)

Physical therapists work with patients recovering from injuries or surgeries to help them regain movement and strength. Most PT programs lead to a Doctor of Physical Therapy (DPT) degree.

### What You'll Need:

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
CHEM 2200 and CHEM 2201
- **One year of Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **One year of Anatomy and Physiology**  
HNSC 2302 Human Anatomy and Physiology 1 (lecture and lab)  
HNSC 2303 Human Anatomy and Physiology 2 (lecture and lab)
- **One year of Physics**  
PHYS 1100 General Physics 1  
PHYS 2100 General Physics 2
- **Psychology (Intro and any other 3-credit psychology course)**  
PSYC 1000 Introduction to Psychology
- **Math/Statistics (Precalculus and Statistics)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
ECON 3400/BUSN 3400 Introduction to Economic and Business Statistics  
-OR-  
PSYC 3400 Statistical Methods in Psychological Research  
-OR-  
HNSC 3300 Introduction to Biostatistics for the Health Sciences

**PRO TIP: You'll need at least 50 hours of volunteer work in PT settings.**

**Mix it up with inpatient and outpatient experiences!**

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## Nursing

While Brooklyn College doesn't offer an RN program, we can help you prepare for accelerated nursing programs. These are fast-tracked programs for students with a bachelor's degree who want to become nurses.

### What You'll Need:

- **One semester of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
  
(Some programs may require up to Organic Chemistry 1 as well. Please check with the program you plan to apply to in order to determine if this is needed.)
- **One year of General Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **Microbiology (lecture and lab)**  
BIOL 3003 Microbiology  
BIOL 3004 Microbiology Lab
- **One year of Anatomy and Physiology**  
HNSC 2302 Human Anatomy and Physiology 1 (lecture and lab)  
HNSC 2303 Human Anatomy and Physiology 2 (lecture and lab)
- **Psychology (Intro and any other 3-credit psychology course)**  
PSYC 1000 Introduction to Psychology
- **Math/Statistics (Precalculus and Statistics)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
ECON 3400/BUSN 3400 Introduction to Economic and Business Statistics  
-OR-  
PSYC 3400 Statistical Methods in Psychological Research  
-OR-  
HNSC 3300 Introduction to Biostatistics for the Health Sciences

**PRO TIP:** Interested in SUNY Downstate? You can get conditional acceptance if you maintain a 3.3 GPA and meet other criteria! Speak to a pre-health adviser for more information on this pathway.

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## Optometry

Optometrists are eye care professionals who diagnose and treat vision problems. They work closely with patients to ensure healthy eyesight.

### What You'll Need:

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
CHEM 2200 and CHEM 2201
- **One semester of Pre-Organic Chemistry (taken with CHEM 2200 or prior to taking Organic Chemistry 1)**  
CHEM 2110 Principles of Chemical Reactivity
- **One year of Organic Chemistry (lecture and lab)**  
CHEM 3511 and CHEM 3512  
CHEM 3521 and CHEM 3522
- **One year of Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **One year of Physics**  
PHYS 1100 General Physics 1  
PHYS 2100 General Physics 2
- **Math (Precalculus or Calculus)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
MATH 1201 Calculus 1
- **One year of English Composition**  
ENGL 1010 English Composition 1  
ENGL 1012 English Composition 2
- **Psychology (Intro and any other 3-credit psychology course)**  
PSYC 1000 Introduction to Psychology
- **Statistics**  
ECON 3400/BUSN 3400 Introduction to Economic and Business Statistics  
-OR-  
PSYC 3400 Statistical Methods in Psychological Research  
-OR-  
HNSC 3300 Introduction to Biostatistics for the Health Sciences

**PRO TIP:** You'll need to take the OAT exam for optometry school, and shadowing optometrists is essential for gaining experience.



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## Podiatry

Podiatrists specialize in the treatment of foot and lower limb disorders. They diagnose and treat various issues, from sports injuries to chronic conditions.

### What You'll Need:

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
CHEM 2200 and CHEM 2201
- **One semester of Pre-Organic Chemistry**  
(taken with CHEM 2200 or prior to taking Organic Chemistry 1)  
CHEM 2110 Principles of Chemical Reactivity
- **One year of Organic Chemistry (lecture and lab)**  
CHEM 3511 and CHEM 3512  
CHEM 3521 and CHEM 3522
- **One year of Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **One year of Physics**  
PHYS 1100 General Physics 1  
PHYS 2100 General Physics 2
- **Math (Precalculus or Calculus)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
MATH 1201 Calculus 1
- **One year of English Composition**  
ENGL 1010 English Composition 1  
ENGL 1012 English Composition 2

**PRO TIP:** You'll need to shadow podiatrists to gain hands-on experience. Plus, the MCAT is usually required for admission!

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## Chiropractic

Chiropractors treat patients by focusing on spinal health and musculoskeletal systems. They use hands-on techniques to relieve pain and improve function.

### What You'll Need:

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
CHEM 2200 and CHEM 2201
- **One semester of Pre-Organic Chemistry**  
(taken with CHEM 2200 or prior to taking Organic Chemistry 1)  
CHEM 2110 Principles of Chemical Reactivity
- **One year of Organic Chemistry (lecture and lab)**  
CHEM 3511 and CHEM 3512  
CHEM 3521 and CHEM 3522
- **One year of Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **One year of Anatomy and Physiology**  
HNSC 2302 Human Anatomy and Physiology 1 (lecture and lab)  
HNSC 2303 Human Anatomy and Physiology 2 (lecture and lab)
- **One year of Physics**  
PHYS 1100 General Physics 1  
PHYS 2100 General Physics 2
- **Math (Precalculus or Calculus)**  
MATH 1011 Precalculus  
-OR-  
MATH 1012 Precalculus With Recitation  
MATH 1201 Calculus 1
- **One year of English Composition**  
ENGL 1010 English Composition 1  
ENGL 1012 English Composition 2
- **Psychology (Intro and any other 3-credit psychology course)**  
PSYC 1000 Introduction to Psychology

**PRO TIP:** Shadowing a chiropractor is a great way to understand the field and get recommendation letters!

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## Diagnostic Medical Imaging

Interested in medical technology? Radiologic technologists use imaging techniques like X-rays, MRIs, and ultrasounds to help doctors diagnose diseases.

### What You'll Need:

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 and CHEM 1201  
CHEM 2200 and CHEM 2201
- **One year of Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **One year of Anatomy and Physiology**  
HNSC 2302 Human Anatomy and Physiology 1 (lecture and lab)  
HNSC 2303 Human Anatomy and Physiology 2 (lecture and lab)
- **One year of Physics**  
PHYS 1100 General Physics 1  
PHYS 2100 General Physics 2
- **Math (Precalculus or Calculus)**  
MATH 1011 Precalculus or MATH 1012 Precalculus With Recitation  
MATH 1201 Calculus 1
- **One year of English Composition**  
ENGL 1010 English Composition 1  
ENGL 1012 English Composition 2
- **Psychology (Intro and any other 3-credit psychology course)**  
PSYC 1000 Introduction to Psychology

**PRO TIP:** Volunteering at clinics or hospitals with imaging departments will give you valuable experience!

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## Veterinary Medicine

Veterinarians take care of animals, from pets to livestock. If you love animals and want to work with them daily, this might be your path!

### What You'll Need:

- **One year of General Chemistry (lecture and lab)**  
CHEM 1200 General Chemistry 1 Lecture  
CHEM 1201 General Chemistry 1 Lab  
**-OR-**  
CHEM 1050 General Chemistry 1A  
CHEM 2060 General Chemistry 1B Lecture and CHEM 1201 General Chemistry 1 Lab  
CHEM 2200 General Chemistry 2 Lecture  
CHEM 2201 General Chemistry 2 Lab
- **One semester of Pre-Organic Chemistry (taken with CHEM 2200 or prior to taking Organic Chemistry 1)**  
CHEM 2110 Principles of Chemical Reactivity
- **One year of Organic Chemistry (lecture and lab)**  
CHEM 3511 and CHEM 3512  
CHEM 3521 and CHEM 3522
- **One year of General Biology**  
BIOL 1001 General Biology 1  
BIOL 1002 General Biology 2
- **Zoology (lecture and lab)**  
BIOL 2001 Organismic Biology 2, Zoology  
BIOL 2002 Animal Form and Function Lab
- **Microbiology (lecture and lab)**  
BIOL 3003 Microbiology  
BIOL 3004 Microbiology Lab
- **Genetics**  
BIOL 3011 Genetics
- **Biochemistry (lecture and lab)**  
CHEM 4570 Biochemistry 1
- **One year of Physics**  
PHYS 1100 General Physics 1  
PHYS 2100 General Physics 2



- **One semester of Math**

MATH 1011 Precalculus

**-OR-**

MATH 1012 Precalculus With Recitation

- **One year of English Composition**

ENGL 1010 English Composition 1

ENGL 1012 English Composition 2

- **Statistics**

ECON 3400/BUSN 3400 Introduction to Economic and Business Statistics

**-OR-**

PSYC 3400 Statistical Methods in Psychological Research

**-OR-**

HNSC 3300 Introduction to Biostatistics for the Health Sciences

**PRO TIP:** Get hands-on experience by working or volunteering with veterinarians in clinical settings. Also, prepare for the GRE exam!

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## Health and Nutrition Sciences

If you're interested in public health, clinical health careers, or nutrition, this program is for you! The health and nutrition sciences major offers a broad understanding of how health works at the individual and community levels.

### Possible Career Paths:

- **Health Education**
- **Public Health**
- **Nutritionist**
- **Clinical roles (e.g., nursing, physician's assistant)**

### What You'll Need:

**Major Requirements:** 55–70 Credits

Health and Nutrition Sciences 3300 or Psychology 3400

A college-wide minimum of 24 credits in advanced courses in one department, specific to your major, must be completed at Brooklyn College with a grade of C or higher in each course.

In addition, all students must complete the requirements in one of the following tracks within the B.S. degree:

- **Foods and Nutrition**
- **Pre-Health Professions**
- **Public Health**
- **Thanatology**

The department chair or designee may allow substitutions for one or more course requirements, consistent with the educational goals of the program.

**PRO TIP:** Take advantage of on-campus research opportunities in public health or nutrition science.

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## Speech-Language Pathology and Audiology

If you're interested in helping people with speech, language, or hearing issues, this career could be a great fit!

### What You'll Need:

**Communication Science Courses:** These cover topics like language development, phonetics, and hearing science.

**Clinical Hours:** Hands-on experience in clinical settings with real patients is required for most programs.

**Major Requirements:** 47 Credits

It is required that majors in the communication sciences and disorders program attend a new major meeting prior to declaring their major, and recommended that students meet with a departmental adviser once a year thereafter.

Students may not offer more than six credits for a bachelor's degree from Communication Arts, Sciences, and Disorders 4270, 5271, 5272, and 5273.

The department chair may allow substitutions for one or more of these requirements, consistent with the educational goals of the program.

Students must complete all of the following:

**Communication Arts, Sciences, and Disorders 1113, 1176, 1178, 1179, 2277, 2481, 2482, 2231, 3381, 3382, 4383, and 5275W; Linguistics 2001; and one of the following: Communication Arts, Sciences, and Disorders 1619, 1635, or 4666, or ECAE 3001.**

Additionally, students who intend to pursue advanced degrees in speech-language pathology or audiology are encouraged to take courses that satisfy the American Speech-Language-Hearing Association Certification Standards. Courses in the areas of statistics (Psychology 3400 or its equivalent), physical sciences (Physics 1005/1100, Chemistry 1007 or an equivalent), and social/behavioral sciences (Psychology 1000 or its equivalent) are strongly suggested.

Students must maintain a B average in major courses, with no grade lower than a C. No course may be repeated more than once.

**PRO TIP:** Make sure to stay in close contact with the Communication Arts, Sciences, and Disorders Department for updated requirements!

## EXTRA TIPS FOR PRE-HEALTH STUDENTS

1. **Start Early:** Begin volunteering or gaining clinical experience as soon as you can. This could be in hospitals, clinics, or even community health centers.
2. **Build Relationships:** Get to know your professors and supervisors. You'll need their help for recommendation letters.
3. **Study Smart:** It's not just about the grades. Develop strong study habits and stay organized.
4. **Apply Early:** Most professional schools have rolling admissions, so the sooner you apply, the better your chances.