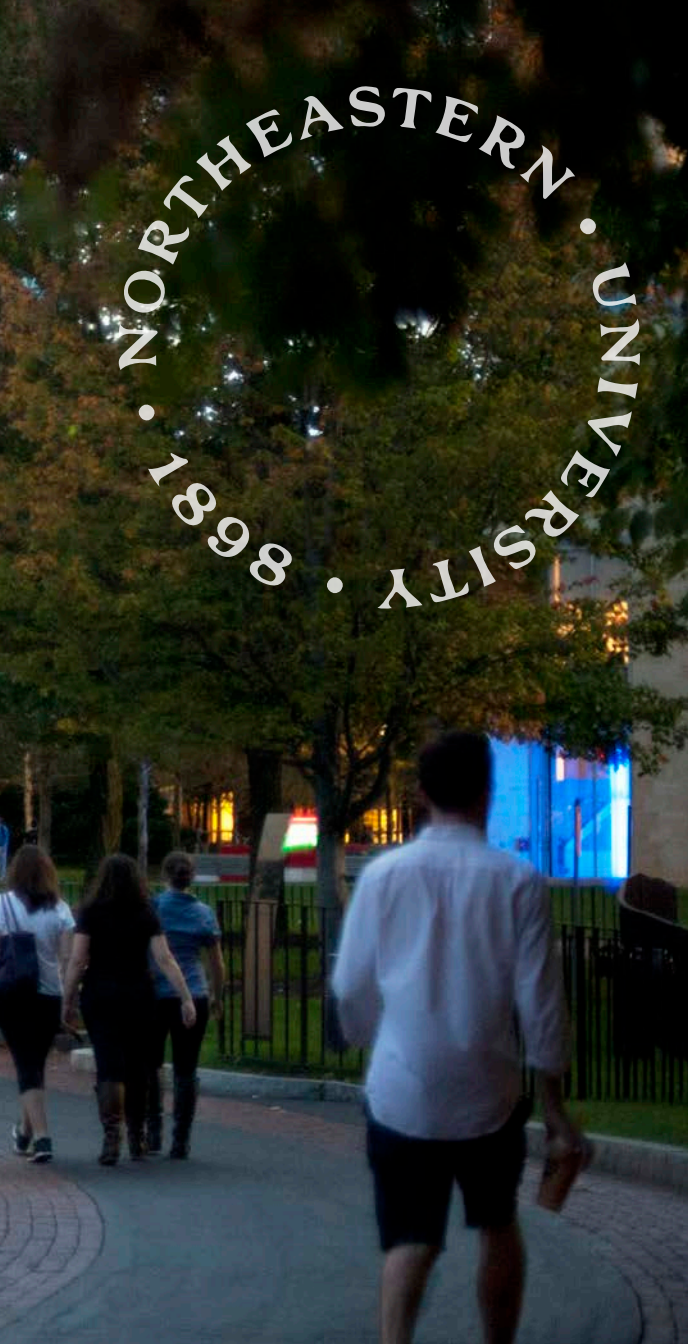

Northeastern
Bouvé College of
Health Sciences
HEALTH PROFESSIONS • NURSING • PHARMACY

Bouvé College of Health Sciences offers undergraduate programs, five combined majors and over 34 graduate programs within three schools – health professions, nursing, and pharmacy, with an inter-disciplinary emphasis that reflects today's team approach to health care.

The mission of the Bouvé College of Health Sciences is to be a center of excellence in health professional education, research, and service, and to inspire and create the next generation of interprofessional healthcare leaders for the well-being of our global community.

The structure of the college fosters cross-disciplinary interaction among faculty and students, encourages innovation in the education of both entry-level and advanced health professionals, and recognizes the autonomy of each profession.

The college builds partnerships with health care delivery systems and the community in order to assure that Bouvé students and faculty have access to practice sites that prepare our graduates to meet the health care needs of our urban neighbors and society.



EXPERIENTIAL LEARNING AND BOUVÉ COLLEGE

Bouvé offers students an unparalleled array of real-world learning options around the world and in Boston, the preeminent center for medical innovation. Students have access to campus labs, including the Arnold S. Goldstein Simulation Laboratory, the Human Anatomy Lab, and the Speech Language and Hearing Center. Students also have the opportunity to integrate their classroom learning with real world experiences through our signature cooperative education “co-op” program in which students spend 4-6 months in full-time employment. When students return to the classroom, they are no longer passive recipients of theory and facts, but active participants in a dynamic academic dialogue where students share insights from their various endeavors. Upon graduation, experienced Bouvé students are uniquely positioned for a competitive job market.

School of Nursing

NURSING MAJOR

Nursing practice focuses on promoting, preserving, and restoring the health and well-being of individuals, families, groups, and communities across the life span. The School of Nursing offers a Bachelor of Science in Nursing (BSN) degree that will prepare you to practice as a professional nurse in a variety of settings, such as hospitals, clinics, community health centers, home care, school settings, research, education, and more.

Our curriculum offers excellent instruction in the sciences while emphasizing appreciation for human life in all of its stages. As a student in the School of Nursing, you will begin your clinical experiences as a sophomore – earlier than students in most other BSN programs. With this, co-op opportunities in Boston's premier hospitals and a senior clinical practicum, you'll graduate with exceptionally strong clinical preparation that will allow you to transition seamlessly into today's fast-paced, challenging healthcare environment.

The Nursing program emphasizes a community-based primary care approach that starts in your freshman year and builds throughout the program. Our strong community focus gives you experience working in multiple settings in urban areas and prepares you to work with diverse populations, including the under-served and socioeconomically disadvantaged.

Successful completion of the baccalaureate nursing program allows you to sit for the National Council Licensing Examination (NCLEX-RN) to become a registered nurse. The baccalaureate program also provides the educational background needed for graduate study in nursing specialties.

Co-ops and clinicals are offered in world-renowned healthcare facilities in Boston, including Boston Children's Hospital, Massachusetts General Hospital, Brigham and Women's Hospital, Tufts Medical Center, Spaulding Rehabilitation Center, and more.

Nursing labs offer state-of-the-art teaching technology, such as modern nursing units, the computerized mannequin SIM-MAN, and Nowell the baby-delivering mannequin.

Faculty practice in their area of expertise.

100% of the graduates from this program have become licensed in the last ten years.

Sample class

Nursing with Vulnerable Populations

Utilizes a fully equipped Bouvé College medical van for part of the course where students and an instructor go out into the community and provide medical/ preventative services to the under-served populations of the community. Partnering with the Boston Public Health Commission and other agencies, students hone their technical skills doing health screenings, education and immunizations.

NURSING (B.S.N.)

4 Year, 2 (6-month) Co-op

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	Integr. Anatomy & Physiology 1 + Lab General Chemistry + Lab/Recitation Mathematical Thinking or Calculus Nutrition College: An Introduction	Integr. Anatomy & Physiology 2 + Lab Basic Microbiology + Lab First-Year Writing Foundations of Psychology	NUterm (optional)	Vacation
year 2	Professional Development for Co-op Health & Illness: Nursing Perspective Health Assessment & Fundamental Nursing Skills Int. Pathophysiology & Pharm Interventions Elective	Co-op 1		Nursing Women & Families + Clinical Developmental Psychology
year 3	Nursing Care of Adults 1 + Clinical Adv Intervention & Assessment w/ Lab Promotion of Mental Health + Clinical Statistics for Health Science Elective	Co-op 2		Healthcare Research Ethics Requirement
year 4	Nursing Care of Adults 2 + Clinical Nursing Care of the Child + Clinical Introduction to Sociology	Managing & Leading in Healthcare Comprehensive Nursing Practicum/Clinical Public Health Nursing + Clinical Advanced Writing in the Health Prof		

8 Credits required via AP credit, course overload, or classes on co-op

* Sample curricula, subject to change

	Fall	Spring	Summer 1	Summer 2
year 1	Class	Class	Vacation	
year 2	Class	Co-op 1		Class
year 3	Class	Co-op 2		Vacation
year 4	Class	Co-op 3		Class
year 5	Class	Class	5 year, 3 (6-month) Co-op Option	

School of Pharmacy

PHARMACY MAJOR

In addition to preparing and dispensing medications prescribed by physicians, pharmacists help improve drug therapy outcomes through direct involvement with patients and other members of the healthcare team. The pharmacist's expanding role as a clinical drug consultant to physicians, nurses, other healthcare professionals, and patients has broadened the scope of professional opportunities. Community and hospital pharmacies, HMOs, private practice groups, long-term care facilities, home healthcare, public health service, the armed services, and law enforcement agencies all require pharmacists. You may also choose to work in drug development or marketing, education, information services, research, manufacturing, government, or professional association management.

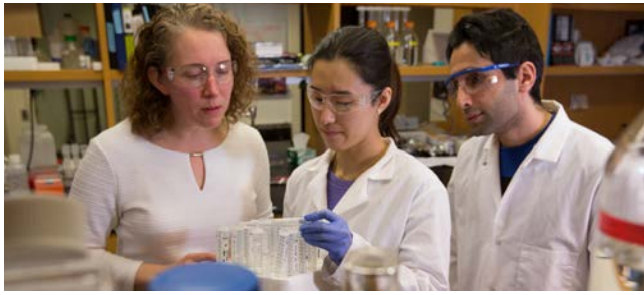
Northeastern University's Doctor of Pharmacy (PharmD) is a six-year program. It offers pharmacy practice experiences earlier in the curriculum than any other pharmacy program in the U.S., with three four-month co-op education experiences in addition to one academic year of advanced clinical practice experiences. **It is the only U.S.-based PharmD co-op program.** As a result, Northeastern's pharmacy students are in high demand for employment before and upon graduation.

Our graduates consistently perform above national and state pass rates on the national pharmacy board examination. The 2019 first time attempt pass rate was 91.35% compared to the national average of 88.34%.

Many graduates of the pharmacy program go on to leading graduate schools, residencies, and fellowship programs for specialized training. A growing number of graduates pursue additional degrees and training in pharmaceutical sciences and research (PhD), business administration (MBA), and law (JD) to complement their strong pharmacy education.

Our program provides a strong emphasis on experiential education, with co-ops at world-class institutions and companies such as Novartis, Eli Lilly, Tufts Medical Center, Beth Israel Deaconess Medical Center, and Walgreens, plus community health centers and public health services.

Our faculty is internationally distinguished in drug design; development and delivery; immunopharmacology; neuropharmacology; and pharmacoeconomics.



Sample class

Leadership and Advocacy

An interprofessional elective course offered to students throughout Bouvé. The course is designed to facilitate successful careers of young healthcare professionals and expand students' knowledge of their leadership potential. The focus is on personal and professional development including leadership, organizations, global health, relational skills, and advocacy. This course is valuable to students with interests in administrative positions, high-level clinical positions, post-graduate training, and patient and professional advocacy.

PHARMACY (PHARMD)

6 Year, 3 (4-month) Co-op

	Fall (Sept-Dec)	Spring (Jan-April)	Summer (May-Aug)
year 1	General Chemistry 1 + Lab/Recitation General Biology 1 + Lab Foundations of Psychology Calculus 1 College: An Introduction	General Chemistry 2 + Lab/Recitation General Biology 2 + Lab First-Year Writing Introduction to the Profession of Pharmacy Elective	NUterm-Summer I (optional)/Vacation
year 2	Organic Chemistry 1 + Lab/Recitation Human Physiology 1 + Anatomy Lab 1 Physics for Pharmacy + Lab Elective	Organic Chemistry 2 + Lab/ Recitation Human Physiology 2 + Anatomy Lab 2 Introduction to Pharmacy Practice + Lab Advanced Writing in the Health Professions	Introductory Pharmacy Practice Experience (IPPE) Co-op
year 3	Biochemistry Healthcare Systems Pharmacology/Med Chem 1 Pharmaceutics 1	Introductory Pharmacy Practice Experience (IPPE) Co-op	Pharmacy Care Management Educ. & Behavioral. Interventions + Lab Pharmacology/Med Chem 2 Pharmaceutics 2 w/ lab
year 4	Introductory Pharmacy Practice Experience (IPPE) Co-op	Comprehensive Disease Management + Seminar Pharmacokinetics and Biopharmaceutics Immunology Research Methodology & Biostatistics	Comprehensive Disease Management 2 + Seminar Comprehensive Disease Management Skills Lab Anti-infectives Pharmacy Jurisprudence Elective/Capstone
year 5	CDM3 + Seminar/Skills Lab Evidence-Based Medicine Elective/Capstone Elective/Capstone	CDM4 + Seminar/Skills Lab* Economic Evaluation APPE Prep Elective/Capstone Elective/Capstone	Advanced Pharmacy Practice Experience (APPE) ***
year 6	Advanced Pharmacy Practice Experience (APPE)	Advanced Pharmacy Practice Experience (APPE)**	

* BS in Pharmacy Studies awarded after Spring Semester of year 5
** PharmD awarded after Spring Semester of year 6
***Students will complete 6 six-week rotations in the last year totaling 36 semester credit hours

* Sample curricula, subject to change

School of Pharmacy

PHARMACEUTICAL SCIENCES MAJOR

The B.S. in Pharmaceutical Sciences program is geared toward highly motivated students who are strongly focused on careers in biomedical/pharmaceutical research, biomedicine, and/or the pharmaceutical/biotechnology industries. Students learn about each of the fields that contribute to our understanding of how medications are conceived, synthesized, targeted, and tested for biological activity and specific therapeutic uses.

The educational approach calls for students to be engaged in **undergraduate research** at the earliest possible time and promotes graduate-style mentorship and experiential learning in the context of an **intensive scientific curriculum** with **specialized educational opportunities**. In the first year, students complete Introduction to Health Science Research, a course that introduces them to scientific literature, hypothesis generation, and use of the scientific method to investigate unsolved problems. This course also introduces students to researchers with the goal of matching students with faculty research mentors. In their senior year, students complete a year-long research capstone project in an area of their interest. This project, which is equivalent to an undergraduate thesis, is the culmination of their preparation and an accomplishment that leverages the next steps in their career development.

Graduates of the B.S. in Pharmaceutical Science program have a solid foundation in the science of drug discovery, delivery, evaluation, and development. This specialized training at the undergraduate level is unique to our program.

Graduates of the B.S. in Pharmaceutics Science are well- prepared to pursue scientific careers in:

- the pharmaceutical industry
- academic institutions
- government agencies

Graduates will be highly competitive for admission into:

- M.S. and Ph.D. programs in the biomedical sciences
- medical schools
- health professional degree programs

Research opportunities are available with distinguished faculty in:

- The Department of Pharmaceutical Sciences
- The Center for Drug Discovery
- The New England Inflammation and Tissue Protection Institute
- The Center for Pharmaceutical Biotechnology and Nano-medicine
- The Center for Translational Neuroimaging
- Research co-ops are also available at Boston area pharmaceutical and biotechnology companies

PHARMACEUTICAL SCIENCES (B.S.)

4 Year, 2 (4-Month) Co-op

	Fall (Sept-Dec)	Spring (Jan-April)	Summer (May-Aug)
year 1	General Chemistry 1 + Lab General Biology 1 + Lab Foundations of Psychology Calculus 1 College: An Introduction	General Chemistry 2 + Lab General Biology 2 + Lab First-Year Writing Introduction to Health Science Research	Vacation / Volunteer Research Experience
year 2	Organic Chemistry 1 + Lab Human Physiology 1+ Lab Physics for Pharmacy + Lab Professional Development for Co-op Lab Research Rotation	Organic Chemistry 2 + Lab Human Physiology 2 + Lab NU Path Elective NU Path Elective	Experiential Learning / Co-op
year 3	Biochemistry Pharmacology and Medicinal Chemistry 1 Pharmaceutics 1 Advanced Writing for Health Professionals	Experiential Learning / Co-op	Pharmacology and Medicinal Chemistry 2 Pharmaceutics 2 + Lab Anti-infectives
year 4	Capstone Project 1 Statistics / Experimental Design Research Ethics for Beginning Health Scientists Pharmaceutical Toxicology	Capstone Part 2 Biopharmaceutics / Pharmacokinetics Immunology NU Path Elective	

* Sample curricula, subject to change

School of Health Professions

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

Speech-language pathologists and audiologists provide clinical services to communicatively impaired individuals of all ages in a number of different settings, including hospitals, schools and private practices. Speech-language pathologists treat disorders such as developmental language and articulation disorders, voice and resource problems, stuttering, and language and cognitive impairments due to stroke, head injury and progressive neurologic diseases. Audiologists specialize in the prevention, identifications, assessment, and rehabilitation of congenital and acquired hearing disorders.

In our four-year program, students take courses in both speech-language pathology and audiology in preparation for advanced training and specialization at the graduate level. The curriculum provides a solid foundation in speech-language pathology, audiology, arts and sciences, and its flexibility allows you to minor in an area of related interest. In addition to the BS degree, students can complete an interdisciplinary minor in Early Intervention which includes a two-semester clinical practicum at an Early Intervention Program working with infants, toddlers and their families. Students graduate with 25 hours of observation of various disorder areas.

A unique aspect of the Speech-Language Pathology and Audiology program is an accelerated BS/MS option. Students may apply to the accelerated program at the end of their third year to earn both their Bachelor's and Master's degree within five years.

Students have access to Northeastern University Speech-Language and Hearing Center which provides assessment, treatment, counseling and referral services to children and adults with communication, swallowing, hearing and balance problems.

Prepares students to work in both clinical and educational settings and for graduate study in Speech-Language Pathology (SLP) or Audiology (AuD).

Experiential Learning

Service Learning opportunities include literacy work with single-parent families in local homeless shelters with Dr. Therese O'Neil Pirozzi, volunteering in the on-campus Speech-Language & Hearing Center and the Voice Preservation Center or participation in the undergraduate Speech and Hearing Club which provides learning through service, such as walks for Autism, Traumatic Brain Injury, Hearing Loss and ALS.

Co-op examples include:

- Infant hearing screener or audiology assistant at Massachusetts Eye and Ear infirmary
- ORL clinical assistant at Boston Children's hospital
- Teacher Assistant at Perkins School for the Blind.

Faculty Example

Dr. Emily Zimmerman is an investigator on several grants that focus on examining feeding and cardiorespiratory patterning in Zika-exposed infants in Puerto Rico; the interplay of sucking, feeding, and vocal development in the first year of life; and environmental influences on child health and development.

SPEECH LANGUAGE PATHOLOGY AND AUDIOLOGY (B.S.)

4 year, 1 (6-month) Co-op

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	Integrated Anatomy & Phys. 1 w/ Lab Mathematical Thinking/Calculus 1 Foundations of Psychology College: An Introduction	Integrated Anatomy & Phys. 2 w/ Lab Intro to Communication Disorders Speech & Hearing Science NU Path Interpreting Culture Elective	NUterm (optional)	Vacation
year 2	Intro to Audiology Physics for Life Sciences I w/ Lab Developmental Psychology A&P of Speech & Hearing Mech.	Prof. Development for Co-op Adv. Writing in the Health Professions Statistics and Software Cognition Comm Skills for the Health Professions	Elective Elective	Co-op
year 3	Co-op Continued	Phonetics Language Development Healthcare Research NU Path Ethical Reasoning Elective	Vacation	Elective Elective
year 4	Language Disorders Across Lifespan Clinical Procedures Psychology Elective Elective	Speech Disorders Across Lifespan Moral and Social Problems in Health Care Aural Rehabilitation Education Elective		

* Sample curricula, subject to change

Plus One **BS/MA in 5 years available for this program**

School of Health Professions

HEALTH SCIENCE MAJOR

The Health Science major is a pre-professional program designed to provide students with the essential preparation for careers and graduate education in population health, medicine, dentistry, physician assistant, social work, nursing and other health professions. The major provides students with a solid foundation in the basic sciences and the study of population health, health policy systems and communications, healthcare management, and community-based public health.

The diversity of coursework challenges students to think critically about healthcare, disease prevention, health promotion and intervention at multiple levels. The **flexible and interdisciplinary curriculum** creates opportunities for students to easily complete minors such as global health and nutrition or to consider combined majors. Students in the major can complete an **accelerated Master's degree in Public Health** through a Plus One program.

Experiential opportunities in Health Science include research, Service Learning and/or Co-op. Service learning includes teaching nutrition to student after-school programs and working in the Boston area with the urban poor, elderly, children and minorities to address topics of public policy, advocacy and cultural diversity.

Co-ops take place at major hospitals, research organizations, clinics and private practices.

Recent co-op positions include:

- Research Assistant at the Institute for Health Equity and Social Justice Research
- Primary Care Practice Assistant at Beth Israel Deaconess Medical Center
- Public Health Associate for the Town of Arlington

Faculty Example

Professor Collette Ncube is a maternal and child health researcher dedicated to understanding and addressing racial/ethnic disparities. She has active projects in the following topic areas: racial/ethnic disparities in maternal morbidity/mortality, antepartum and intrapartum stillbirth risk, and socioeconomic (dis)advantage across the life course with respect to later life reproductive outcomes.

Sample class

Community and Public Health

Provides students with a foundation of public health and community-based methods for improving the health of populations. Explores the purpose and structure of the U.S. public health system, contemporary public health issues such as prevention of communicable diseases, health education, social inequalities in health and healthcare, public health responses to terrorism, and control of unhealthy behaviors like smoking, drinking, drug abuse, and violence.

HEALTH SCIENCE (B.S.)

4 Year, 1 (6-month) Co-op Option

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	Calculus 1 Foundations of Psychology Biology 1 + Lab The American Healthcare System College: An Introduction	College Writing General Biology 2 + Lab General Chemistry 1 + Lab/Recitation Elective	NUterm (optional)	Vacation
year 2	Foundations of Biostastics Public Health Core Elective/Selective Elective/Selective	Public Health Core Elective/Selective Elective/Selective Elective/Selective	Public Health Core Moral Problems	Vacation
year 3	Professional Development for Co-op Basic Clinical Skills or Elective/Selective Public Health Core Elective/Selective Elective/Selective	Co-op		Elective/Selective Advanced Writing in the Health Professions
year 4	Health Science Capstone Introduction Public Health Core Elective/Selective Elective/Selective Elective/Selective	Health Science Capstone Public Health Core Elective/Selective Elective/Selective		

* Sample curricula, subject to change

	Fall	Spring	Summer 1	Summer 2
year 1	Class	Class	Vacation	
year 2	Class	Class	Vacation	Co-op
year 3	Co-op	Class	Vacation	
year 4	Class	Co-op		Vacation
year 5	Class	Class		

Public Health Core Courses

American Healthcare Systems
Communication Skills
Community and Public Health
Health Policy and Administration
Principles of Epidemiology in Med and Pub Health
Global Discrimination
Health Ed and Program Planning

Selective Categories

Research
Society and Health
Policy and Administration
Physical Activity and Nutrition
Digital Health

Students working to fulfill prerequisites for clinical graduate programs such as MD, PA, or PT programs use their elective spaces to take these pre-requisite courses. Please see the sample pre-health plan.

PRE-MED AND PRE-HEALTH ADVISING

The Northeastern PreMed and PreHealth Advising Program provides individualized advising resources to students and alums considering careers in the areas of allopathic medicine (MD), osteopathic medicine (DO), dentistry, optometry, physician assistant, podiatric medicine, or veterinary medicine. We strive to educate and advise students on health professional school expectations, preparation requirements, and application processes to facilitate the success of Northeastern applicants and be a trusted source of competent and caring health professions advisors.

The experiential component of a Bouvé College education helps prepare students to become a strong applicant to graduate programs. Not only do they possess the educational background in the hard sciences, but they have taken courses in Public Health to greater understand the healthcare system. Community engagement, research and clinical experiences are all easily obtained through the Bouvé experience.

2020 Acceptance Rate Data

- 79% of Bouvé applicants to MD/DO/Dental programs were accepted
- National average for medical school acceptance was 41% (reported by AMCAS)

Pre-Med

In order to prepare for the MCATS and medical school, students are encouraged to take:

- Biology with labs (2 semesters)
- General Chemistry with labs (2 semesters)
- Organic Chemistry with labs (2 semesters)
- Genetics and Molecular Biology with lab
- Biochemistry with lab
- Math (2 semesters)
- English Composition/Writing Intensive Courses (2 semesters)
- Behavioral Sciences (2 semesters)

Pre-PA

Each Physician Assistant (PA) program is unique and students must research prerequisite courses for the programs to which they plan to apply. Common courses students preparing for PA school take as their electives often include:

- Biology with labs (two semesters)
- General Chemistry with labs (two semesters)
- Anatomy and Physiology with labs (two semesters)
- Genetics and Molecular Biology with lab
- Microbiology with lab
- Math (two semesters)

Many programs require an approximate number of paid, hands-on patient care experience prior to applying, which can be obtained as an undergraduate student.

Pre-Physical Therapy

Students are encouraged to take the prerequisites for the DPT program. The prerequisite classes are:

- Anatomy and Physiology and lab (2 semesters)
- Physics and a lab (2 semesters)
- Chemistry and lab (2 semesters)
- Exercise Physiology (1 semester)
- Developmental Psychology (1 semester)

Northeastern DPT Priority Application review is available for students who meet established criteria including but not limited to:

- Cumulative GPA of 3.4 or greater
- Prerequisite science GPA of 3.4 or greater
- Not retaken more than one science prerequisite
- Have completed 40 hours of PT observation time in health or medical related environment

PRE-HEALTH SAMPLE CURRICULUM

5 Year, 2 (6-Month) Co-op

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	Calculus 1 Foundations of Psychology General Biology 1 + Lab General Chemistry 1 + Lab/Recitation College: An Introduction	The American Health-Care System First-Year Writing General Biology 2 + Lab General Chemistry 2 + Lab/Recitation	NUterm (optional)	Vacation
year 2	Public Health Core Elective/Selective Elective/Selective Elective/Selective	Professional Development for Co-op Basic Clinical Skills or Elective/Selective Public Health Core Foundation of Biostatistics Elective/Selective	Vacation	Co-op 1
year 3	Co-op 1 cont.	Public Health Core Elective/Selective Elective/Selective Advanced Writing for Health Prof.	Vacation	
year 4	Moral & Social Problems in Healthcare Public Health Core Elective/Selective Elective/Selective	Co-op 2 + Study for MCATS/GRE		Vacation
year 5	Intro to Capstone Public Health Core Elective/Selective Elective/Selective Elective/Selective	Health Science Capstone Public Health Core Elective/Selective Elective/Selective		

AP credit is often not accepted for prerequisite courses. In this case, students should complete upper-level coursework to satisfy the requirement. Please refer to program websites for more detail on their AP credit policy.

Public Health Core Courses

American Healthcare Systems
Communication Skills
Community and Public Health
Health Policy and Administration
Principles of Epidemiology in Medical and Public Health
Global Discrimination
Health Ed and Program Planning

* Sample curricula, subject to change

** Sample curriculum does not guarantee a time-frame for acceptance into medical or PA school.
PreMed students should work with their PreMed advisor to decide on a correct time-frame for them to apply to medical school.

COMBINED MAJORS

Combined majors are unique, hybrid degree programs that encourage students to explore multiple academic fields, all while staying on track for graduation. Combined majors include at least nine courses associated with each of two participating disciplines. There must be at least one course that acts as a bridge between the disciplines. No more than two courses may count for both disciplines, i.e., there must be at least 16 courses in the combined major. A home college is designated, in which the student will be registered and from which he or she will be graduated.

Students completing a combined major receive one degree and one diploma. Bouvé College offers combined majors with other colleges:

- Communication Studies and Speech Language Pathology and Audiology
- Data Sciences and Health Science
- Health Sciences and Business Administration
- Health Science and Communication Studies
- Environmental Engineering and Health Science
- Linguistics and Speech Language Pathology and Audiology
- Health Science and Psychology
- Health Sciences and Sociology

MINORS

Minors offer an opportunity for students to complement their major with intensive study in another area. A minor consists of a minimum of four courses defined by a department or an interdisciplinary program. Bouvé College offers many minors that complement or enhance our major degree offerings.

Students are also welcome to explore minor offerings from other Northeastern colleges.

Bouvé minors currently include:

- Communication Sciences and Disorders
- Early Intervention
- Exercise Science
- Global Health
- Health, Humanities, and Society
- Health Psychology
- Health Research Methods
- Health System Operations
- Human Movement Science
- Mindfulness
- Nutrition
- Public Health
- Speech Language Pathology and Audiology
- Wellness

HEALTH SCIENCE AND BUSINESS ADMINISTRATION (B.S.)

5 year, 2 (6-month) Co-op Option

* Sample curricula, subject to change

The combined major in Health Science and Business Administration provides students at Northeastern with an opportunity to study a curriculum that is synergistic with the growing field of health care. This academic combination will provide students with the knowledge and expertise needed to enter a multitude of careers upon graduation. The degree will allow students the unique opportunity to better understand the business side of the health care industry in Massachusetts, which is home to some of the best hospitals and medical research companies in the country. The field is compatible with all the undergraduate concentrations in the School of Business and prepares students to enter the workforce after graduation.

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	Foundations of Psychology General Biology 1 with Lab Calculus 1 Financial Accounting and Reporting Introduction to College	The American Health Care System General Biology 2 with Lab College Writing International Business	NUterm (optional)	Vacation
year 2	Foundations of Biostats w/ recitation Community and Public Health Econ Selective General Chemistry 1 with Lab/Recitation	Professional Development for Co-op Communication Skills for the Health Professions Financial Management Healthcare Policy and Admin General Chemistry 2 with Lab/Rec	Vacation	Co-op 1
year 3	Co-op 1 cont.	Managerial Accounting Business Core Selective Advanced Writing in the Health Professions Elective (Concentration)	Vacation	
year 4	Principles of Epidemiology Managing Healthcare Organizations Health Ed & Prog Plan Business Core Selective	Co-op 2		Vacation
year 5	Health Science Capstone Introduction Global Perspectives on Health and Discrimination Elective (Concentration) Elective (Concentration) Elective (Concentration)	Health Science Capstone Elective (Concentration) Elective (Concentration) Elective (Concentration)		

<u>Business Core Selectives</u>
Introduction to Marketing
Management Information Systems
Supply Chain Management
Organizational Behavior

<u>Public Health Core Courses</u>
Am Healthcare Systems
Communication Skills
Community and Public Health
Health Policy and Administration
Principles of Epidemiology in Med & Pub Health
Health Ed and Program Planning
Global Discrimination

ENVIRONMENTAL ENGINEERING AND HEALTH SCIENCE (B.S.)

5 year, 3 (6-month) Co-op Option

* Sample curricula, subject to change

This inter-college combined major is designed for students who would like to explore their interest in the health sciences while earning the benefit of a Bachelor of Science degree in environmental engineering. The combined major reflects the respective departmental thrusts in environmental health and sustainable resource engineering to create awareness about the complex relationship between the environment and human health, prepare professionals in this growing area capable of providing engineering solutions to current and emerging topics related to environmental engineering and health sciences, and maintain healthy environmental systems by applying and developing techniques to reduce exposure to health hazards. This program combines the content of two majors to allow students to learn the breadth and depth of the convergence between public health and environmental engineering.

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	Calculus 1 for Engineers General Chemistry for Engineers + recitation Cornerstone of Engineering Introduction to the Study of Engineering First year writing	Calculus 2 for Engineers Cornerstone of Engineering Physics for Engineering + Lab Interactive learning seminar Foundation of biostatistics	The American Healthcare system Calculus 3 for Engineers	Vacation
year 2	Environmental Engineering: Principles, Technology, and Sustainability Materials for the Built Environment and lab Statics and Solid Mechanics and recitation Healthcare Policy and Administration	Environmental Health Intro. to Engineering Co-op Fluid Mechanics and Hydraulics Environmental Engineering. Chemistry Engineering Microbiology and Ecology	Community and Public Health Differential Equations/Linear Alg.	Co-op 1
year 3	Co-op 1 continued	Environmental Pollution Fate and Transport Technical Elective Health Education and Program Planning Healthcare Research	Energy Systems: Science, Tech., & Sustainability Science Elective	Co-op 2
year 4	Co-op 2 continued	Professional Issues in Engineering Probability & Engineering Technical Elective Water Treatment Systems Design + Lab Global Perspectives in Discrimination and Health	Vacation	Co-op 3 Advanced writing for the technical professions
year 5	Co-op 3 continued	Technical elective Environmental Engineering Laboratory Environmental health Sr. Design Project - Environmental		

<u>Environmental Engineering Technical Electives</u>
Construction Management Environmental Fluid Mechanics
Solid and Hazardous Waste Management
Life Cycle Assessment of Materials, Products, and Infrastructure
Remote Sensing of the Environment
Hydrologic and Hydraulic Design
Special Topics in Civil Engineering (Climate Science and Technology Adaptation and Policy)

HEALTH SCIENCE AND DATA SCIENCE (B.S.)

5 year, 2 (6-month) Co-op Option

The health science and computer science combined major offers a solid academic and experiential foundation integrating studies in health administration, computer science, mathematics, and statistics. This program reflects the impact of data in modern healthcare and prepares students for success in careers in health administration, community-based health promotion, public health, and big data analysis.

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	Leadership Skill Development Discrete Structures and seminar Fundamentals of Computer Science 1 + Lab College Writing Biology 1 + Lab	Fundamentals of Computer Science 2 + lab Foundations of Psychology Biology-2 and lab Calc 1 for Science and Engineering	Calculus 1 for Science & Engineering Object Oriented Design	Vacation
year 2	American Healthcare systems Object-Oriented Design Comm. Skills for the Healthcare Professions General Chemistry 1 + Lab	Healthcare Policy and Administration General Chemistry-2 + Lab Foundation of Data Science Database Design Professional Development for Khoury Co-op	Vacation	Co-op 1
year 3	Co-op 1 continued	Human Computer Interaction Information Presentation & Visualization Community and Public Health Statistics Course	Vacation	Co-op 2
year 4	Co-op 2 continued	Elective Large-scale Information Storage & Retrieval Advanced Writing General Elective 1	Vacation	
year 5	Healthcare Research or Principles of Epidemiology in Medicine and Public Health General Elective 2 Moral and Social Problems in Healthcare or Technology and Human Values Health Education and Program Planning	Data Science Senior Project Machine Learning & Data Mining Global Perspectives on Discrimination and Health General Elective 3		

* Sample curricula, subject to change

HEALTH SCIENCE AND SOCIOLOGY (B.S.)

4 year, 1 (6- month) Co-op Option

The combined Bachelor of Science in health science and sociology integrates social scientific perspectives to the study of health, illness, and healthcare. Students explore basic sociological concepts relevant for the study of health and healthcare, such as social construction and medicalization. Students explore why, for instance, despite having the most expensive healthcare system, the United States ranks comparatively low in life expectancy and health and well-being outcomes. Provides students with an opportunity to explore the ways that societal factors such as race, class, and gender interplay with health, healthcare, and health disparities.

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	College: an Introduction General Biology and Lab Chemistry 1 and lab Foundations of Psychology Introduction to Sociology	General Biology 2 and lab General Chemistry 2 and lab First year writing The American Healthcare System	Vacation	
year 2	Public Health Core Peoples and Cultures Foundations of Biostatistics or Research Methods in Sociology Sociology selective	Social theory Research Methods in Sociology Sociology selective Public Health Core	Public Health core Moral & Social problems in Healthcare	Vacation
year 3	Professional Development for Co-op Global Markets and Local Culture Public Health Core Social inequality and social change selective Open elective	Co-op		Advanced writing
year 4	Public health core Sociology of Health and Illness Advanced sociology elective Open elective	Capstone Open elective Open elective Open elective	<u>Public Health Core Courses</u> Am Healthcare Systems Communication Skills Community and Public Health Health Policy and Administration Principles of Epidemiology in Med & Public Health Health Ed and Program Planning Global Discrimination	<u>Social Change Selective</u> Gender in a Changing Society Social Movements Class, Power, and Social Change <u>Social Inequality Selective</u> Sociology of Poverty Sociology of Disability Race and Ethnic Relations

HEALTH SCIENCE AND PSYCHOLOGY (B.S.)

4 year, 2 (6- month) Co-op Option

The combined Bachelor of Science degree program in health science and psychology is designed to provide an interdisciplinary approach to public health and psychology. Through interdisciplinary explorations, students have the opportunity to develop knowledge in health promotion and illness prevention by way of understanding people's behaviors, perceptions, and emotions within the contexts of relationships and culture. This highly flexible curriculum is enhanced by experiential learning opportunities and prepares students to practice in interdisciplinary settings and be successful in sustaining and promoting health across populations.

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	Introduction to College General Biology and Lab General Chemistry, Lab + Recitation Calculus Foundations of Psychology	Psych Area A Selective General Biology 2 and Lab Chemistry 2, lab + recitation First year writing	The American Health System or Comparative Health Systems Psych area B Selective	Elective Elective
year 2	Statistics in Psychological Research Public Health Core Public Health Core Biological Psychology Professional Development for Co-op	Co-op 1		Moral and Social Problems in Healthcare Advanced Writing in the Health Professions
year 3	Public Health Core Psych Area A Selective Psychology Elective Open Elective	Co-op 2		Elective Elective
year 4	Public health core PSYC lab Open elective PSYCH elective	Psychology seminar Public health core PSYC elective Brain, Behavior, and Immunity or Clinical Neuroscience or Health Psychology: An Introduction to Concepts, Theories, and Research	<u>Public Health Core Courses</u> Am Healthcare Systems Communication Skills Community and Public Health Health Policy and Administration Principles of Epidemiology in Med & Public Health Health Ed and Program Planning Global Discrimination	<u>Personal/Social Bases of Behavior (Area A)</u> Personality Social Psychology Developmental Psychology Abnormal Psychology <u>Biological/Cognitive Bases of Behavior (Area B)</u> Learning and Motivation Sensation and Perception Psychology of Language Cognition

* Sample curricula, subject to change

LINGUISTICS AND SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (B.S.)

4 year, 1 (6- month) Co-op Option

The combined Bachelor of Science in linguistics and speech-language pathology and audiology provides students with an extensive background in the formal structures of human language; the methods and application of linguistic analysis of language data; the biology, neurology, and physics of the human vocal tract; and the nature of both ordered and disordered human speech communication and language development. Students will develop critical-thinking, information literacy, and strong oral and written communication skills. While on co--op, students gain clinical experience, including the preprofessional training necessary to pursue a graduate degree in speech-language pathology and audiology, and related clinical healthcare domains, or education.

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	College: an Introduction Integrated Anatomy and Physiology Intro to Language and Linguistics First-year Writing Foundations of Psychology	Linguistic Analysis Intro to Communication Disorders Speech and Hearing Science Integrated Anatomy and Physiology II	Vacation	
year 2	Phonetics Intro to Audiology Physics for Life Sciences Intro to Co-op Anatomy & Physiology of Speech & Hearing	Co-op		Elective Elective
year 3	Writing for Health Professions Phonology Communication Skills for the Health Professions Statistics in Psychological Research	Interprofeccional Ethics for Individual and Population Health Phonology Psychology of Language Language Development	Vacation	Elective Elective
year 4	Language and Culture Clinical Procedures Language Disorders Across the Lifespan Linguistics Elective	Morphology Speech Disorders Across the Lifespan Aural Rehabilitation Elective		

* Sample curricula, subject to change

COMMUNICATION STUDIES AND SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (B.S.)

4 year, 2 (6- month) Co-op Option

The combined Bachelor of Science degree program in communication studies and speech-language pathology and audiology offers and interdisciplinary approach to human communication and its disorders. Coursework focuses on the scientific and theoretical frameworks of speech, language, and hearing. Students will also be introduced to the fundamentals of communication theory, and will acquire the practical skills necessary to thrive in our complex and ever-changing society. The curriculum is further enhanced by experiential learning opportunities in clinical settings that prepare the students for a variety of professional careers.

	Fall (Sept-Dec)	Spring (Jan-April)	Summer 1 (May-June)	Summer 2 (July-Aug)
year 1	College: an Introduction Integrated Anatomy and Physiology Intro to Communication Studies First-year Writing Foundations of Psychology	Foundation in Communication Studies Intro to Communication Disorders Speech and Hearing Science Integrated Anatomy and Physiology II	Public Speaking Communication Studies Elective	Communication Studies Elective Elective
year 2	Communication Studies Cluster Course Intro to Audiology Physics for Life Sciences Professional Development for Co-op Anatomy & Physiology of Speech & Hearing	Co-op 1		Vacation
year 3	Writing for Health Professions Communication Studies Elective Communication Skills for the Health Professions Interprofessional Ethics for Individual and Population Health	Statistics in Psychological Research Language and Development Communication Studies Writing Intensive Phonetics	Co-op 2	Vacation
year 4	Language Disorders Across the Lifespan Clinical Procedures General Elective General Elective	Speech Disorders Across the Lifespan Aural Rehabilitation Health Communication General Elective		

* Sample curricula, subject to change

EXPERIENTIAL LEARNING

At Bouvé College of Health Sciences, students are offered an unparalleled array of real-world learning options. Our location in Boston, the pre-eminent center for medical innovation, affords students diverse and comprehensive experiences.

Unlike traditional internships, these elevated professional experiences are integrated into the classroom and curriculum. The result is a customized educational approach that grows richer and more meaningful with each rotation of the academic/experiential cycle.

Co-op

Our signature cooperative education "co-op" program provides the opportunity for students to apply their knowledge through periods of full-time employment, alternating semesters with academic study. While on co-op, students do not pay tuition and are generally paid a salary.

Students bring these real-life experiences back to the classroom, significantly enhancing academic curriculum through reflection and practice. Students will often continue their relationships with employers working per diem, building a robust professional network even before graduation.

Sample co-ops include:

- Nurse Technician at Tufts Medical Center
- Emergency Service Assistant at Brigham and Women's Emergency Department
- Compounding Pharmacy at Massachusetts General Hospital
- Clinical Assistant at Boston Children's Hospital on Hematology/Oncology Research unit
- Rehabilitation Aide at Boston Medical Center
- Human Studies Research Assistant at the USDA Human Nutrition Research Center on Aging
- Assistant Investigator of Medicaid Fraud with the Attorney General's Office in Boston
- Clinical Research Assistant at Yale Medical School

Research

Research lies at the heart of the Bouvé educational experience. The breadth of Bouvé research is extensive, encompassing study at the cellular level to the global systems that impact health across communities. Students, as early as their first year, actively participate in labs and other clinical settings, learning front row as discovery happens. Students have numerous opportunities to work hand-in-hand with faculty members to pursue cutting-edge research. Students also have access to the very latest scientific advances and get the support and mentorship needed to succeed. It's the best of both worlds–big opportunities at a large research powerhouse, and small, intimate research exposure.

Student research experiences include:

- Running cognitive testing at the Center of Cognitive and Brain Health at Northeastern University
- Retrospective review of mothers and babies with opioid exposure at the HOPE clinic at Massachusetts General Hospital
- Research assistant with CaNCURE at the Dana Farber Cancer Institute investigating novel targets for CAR-T cell therapy in patients with Multiple Myeloma
- Conducting literature reviews and data analysis for the Institute of Health Equity and Social Justice

THERE IS NO BETTER TIME OR PLACE

to prepare for your future than Bouvé College of Health Sciences.
Come explore our website, contact us with questions,
and let us arrange a visit for you.

@NUBouve

Northeastern
Bouvé College of Health Sciences

Undergraduate Admissions Visitor Center

First Floor - West Village F
Northeastern University
40 Leon Street
Boston, Massachusetts 02115

617.373.2200
617.373.3100 (TTY)

www.northeastern.edu/admissions
admissions@northeastern.edu

Bouvé Enrollment Management

120 Behrakis Health Sciences Center
Northeastern University
30 Leon Street
Boston, Massachusetts 02115

617.373.2708

bouve.northeastern.edu
becomebouve@northeastern.edu