

Health Science, BS

The health science major offers students a solid academic and experiential foundation that positions them well to pursue graduate and professional school training in the following programs:

- Medicine
- Dentistry
- Veterinary medicine
- Public health
- Physician assistant studies
- Nurse practitioner
- Pharmacy
- Physical therapy
- Social work
- Speech-language pathology

The health science major is also designed for students who are seeking a strong foundation for a career in health administration and in community-based health promotion and public health.

Please visit Bouvé College Learning Outcomes (<https://bouve.northeastern.edu/learning-outcomes/>) for the specific student learning outcomes for this program.

Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (<http://catalog.northeastern.edu/undergraduate/university-academics/university-wide-requirements/>).

NUPath Requirements

All undergraduate students are required to complete the NUPath Requirements (<http://catalog.northeastern.edu/undergraduate/university-academics/nupath/>).

Public Health Core

Code	Title	Hours
YEAR 1		
PHTH 1260 or PHTH 1261	The American Healthcare System Comparative Healthcare Systems	4
YEARS 2 and 3		
PHTH 2210	Foundations of Biostatistics	4
PHTH 2300 or PHTH 2301	Communication Skills for the Health Professions Communication Skills for the Health Professions—Global	4
PHTH 2350 or PHTH 2351	Community and Public Health Community and Public Health - Global	4
PHTH 2515	Healthcare Policy and Administration	4
PHTH 4202	Principles of Epidemiology in Medicine and Public Health	4

PHTH 4540	Health Education and Program Planning	4
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FINAL YEAR		
PHTH 4120	Global Perspectives on Discrimination and Health	4

Health Science Courses

Code	Title	Hours
YEAR 1		
HSCI 1000	College: An Introduction	1
YEAR 2 OR 3		
HSCI 2000	Professional Development for Bouvé Co-op	1
FINAL YEAR		
Complete one of the following:		4-8
HSCI 4720	Health Science Capstone—Service (Prerequisite course HSCI 4700)	
HSCI 4730	Health Science Capstone—Research (Prerequisite course HSCI 4700)	
HSCI 4971	Junior/Senior Honors Project 2 (Prerequisite course HSCI 4970, for a total of 8 cr)	
HSCI 4740	Health Science Capstone Seminar (Prerequisite course HSCI 4700)	

Selectives

Code	Title	Hours
Complete at least three courses from the groups listed below with at least two in one category. At least one of the courses must be at 2000 level or higher. Students may complete additional courses to fulfill a minor, such as global health, nutrition, exercise science, and health research methods.		9-13

Society and Health		
ANTH 2365	Sport, Culture, and Society	
ANTH 3441	Medical Anthropology	
CRIM 3040	Psychology of Crime	
HLTH 5280	The (in)Visibility of (dis)Ability in Society	
LPSC 2302	Global Human Rights: A Social and Economic Perspective	
PHTH 1270 or AFRS 1270	Introduction to Global Health Introduction to Global Health	
PHTH 2414	Environmental Health	
PHTH 5214	Environmental Health	
PHTH 5222	Health Advocacy	
PHTH 5230	Global Health	
PHTH 5234	Economic Perspectives on Health Policy	
SOCL 1246	Environment and Society	
SOCL 1295	Drugs and Society	
SOCL 2303	Gender and Reproductive Justice	
SOCL 2485	Environment, Technology, and Society	
SOCL 3441	Sociology of Health and Illness	

Policy and Administration

ENTR 2206	Global Social Enterprise
HUSV 2800	Sexual Orientation and Gender Expression
MGMT 3340	Healthcare Management, Innovation, and Design
ORGB 3201	Organizational Behavior
PHTH 4511	Healthcare Management
PHTH 4515	Critical Issues in Health and Public-Health Policy
PHTH 5232	Evaluating Healthcare Quality
PHTH 5234	Economic Perspectives on Health Policy
SOCL 3241	Violence and Society

Nutrition and Wellness

CAEP 1280	Introduction to Mindfulness
CAEP 1290	Personal Behavior Change
CAEP 2012	Health Psychology: An Introduction to Concepts, Theories, and Research
CAEP 2101	Behavioral Assessment and Treatment of Health Problems in the 21st Century
COMM 3201	Health Communication
EXSC 1120	Introduction to Exercise, Fitness, and Health
EXSC 4500 and EXSC 4501	Exercise Physiology 1 and Lab for EXSC 4500
EXSC 5200	Cardiopulmonary Physiology
EXSC 5220	Advanced Exercise Physiology
HSCI 1105	Human Nutrition
HSCI 1106	Contemporary Issues in Nutrition
HSCI 2350	Advanced Nutrition in Health and Disease
HSCI 2500	Public Health Nutrition in the Community

Digital Health

CS 2500 and CS 2501	Fundamentals of Computer Science 1 and Lab for CS 2500
DS 2000 and DS 2001	Programming with Data and Data Science Programming Practicum
HINF 5101	Introduction to Health Informatics and Health Information Systems
HINF 5200	Theoretical Foundations in Personal Health Informatics
HINF 5300	Personal Health Interface Design and Development
IS 2000	Principles of Information Science

Research

PHTH 3250	Fundamentals of Qualitative Research
PHTH 5202	Introduction to Epidemiology

Supporting Courses

Code	Title	Hours
YEAR 1		
BIOL 1111 and BIOL 1112	General Biology 1 and Lab for BIOL 1111	5

BIOL 1113 and BIOL 1114	General Biology 2 and Lab for BIOL 1113	5
CHEM 1161 and CHEM 1162 and CHEM 1163	General Chemistry for Science Majors and Lab for CHEM 1161 and Recitation for CHEM 1161	5
MATH 1241	Calculus 1	4
PSYC 1101	Foundations of Psychology	4

YEAR 2 OR 3

PHIL 1165 or HLTH 2100	Moral and Social Problems in Healthcare Interprofessional Ethics for Individual and Population Health	4
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Writing Requirements

Code	Title	Hours
YEAR 1		
ENGW 1111	First-Year Writing	4
YEAR 2 OR 3		
ENGW 3306	Advanced Writing in the Health Professions	4

Electives

Code	Title	Hours
Complete a minimum of 41 credits of general electives. Total elective semester hours required to meet degree completion requirement will depend on student's choice of selectives above.		41

Health Sciences Major Requirement

A grade of C or higher is required for all BIOL, CHEM, HLTH, HSCI, MATH, and PHTH courses.

Academic Policies and Procedures

Please visit Bouvé College of Health Sciences Undergraduate page (<http://catalog.northeastern.edu/undergraduate/health-sciences/>) for academic policies and procedures, including Academic Appeals (<http://catalog.northeastern.edu/undergraduate/academic-policies-procedures/academic-appeals-policies-procedures/>).

Program Requirement

132 total semester hours required

Plan of Study

In addition to the required courses for the Bachelor of Science in Health Science, students who are interested in clinical graduate school programs are encouraged to enroll in the following courses, utilizing available elective slots:

Premed Track

Code	Title	Hours
SOCL 1101	Introduction to Sociology	4
BIOL 2301 and BIOL 2302	Genetics and Molecular Biology and Lab for BIOL 2301	5
PHYS 1145 and PHYS 1146	Physics for Life Sciences 1 and Lab for PHYS 1145	5
PHYS 1147 and PHYS 1148	Physics for Life Sciences 2 and Lab for PHYS 1147	5
CHEM 2311 and CHEM 2312	Organic Chemistry 1 and Lab for CHEM 2311	5

CHEM 2313 and CHEM 2314	Organic Chemistry 2 and Lab for CHEM 2313	5
BIOL 3611 and BIOL 3612	Biochemistry and Lab for BIOL 3611	5

Pre-PA Track

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:

Code	Title	Hours
BIOL 3421 and BIOL 3422	Microbiology and Lab for BIOL 3421	5
BIOL 2217 and BIOL 2218	Integrated Anatomy and Physiology 1 and Lab for BIOL 2217	5
BIOL 2219 and BIOL 2220	Integrated Anatomy and Physiology 2 and Lab for BIOL 2219	5
CHEM 2311 and CHEM 2312	Organic Chemistry 1 and Lab for CHEM 2311	5
CHEM 2313 and CHEM 2314	Organic Chemistry 2 and Lab for CHEM 2313	5
PSYC 3404	Developmental Psychology	4

Pre-Pharmacy Track

Code	Title	Hours
BIOL 2217 and BIOL 2218	Integrated Anatomy and Physiology 1 and Lab for BIOL 2217	5
BIOL 2219 and BIOL 2220	Integrated Anatomy and Physiology 2 and Lab for BIOL 2219	5
BIOL 3611 and BIOL 3612	Biochemistry and Lab for BIOL 3611	5
CHEM 2311 and CHEM 2312	Organic Chemistry 1 and Lab for CHEM 2311	5
CHEM 2313 and CHEM 2314	Organic Chemistry 2 and Lab for CHEM 2313	5
PHYS 1145 and PHYS 1146	Physics for Life Sciences 1 and Lab for PHYS 1145	5

Pre-Physical Therapy Track*

Code	Title	Hours
BIOL 2217 and BIOL 2218	Integrated Anatomy and Physiology 1 and Lab for BIOL 2217	5
BIOL 2219 and BIOL 2220	Integrated Anatomy and Physiology 2 and Lab for BIOL 2219	5
CHEM—take one additional chemistry course with lab		5
EXSC 4500	Exercise Physiology 1	4
PHYS 1145 and PHYS 1146	Physics for Life Sciences 1 and Lab for PHYS 1145	5
PHYS 1147 and PHYS 1148	Physics for Life Sciences 2 and Lab for PHYS 1147	5
PSYC 3404	Developmental Psychology	4

***There is a priority application process for current Northeastern students who meet the required criteria. Visit the** Doctor of Physical Therapy page (<https://bouve.northeastern.edu/physical-therapy/programs/pbdpt/>) **for more information.**

Five Years, Two Co-ops in Summer 2/Fall

This is a sample plan of study.

Year 1				
Fall	Hours Spring	Hours Summer 1	Hours Summer 2	Hours
HSCI 1000	1 BIOL 1113	4 Vacation	0 Vacation	0
PHTH 1260	4 BIOL 1114	1		
PSYC 1101	4 ENGW 1111	4		
BIOL 1111	4 Elective	4		
BIOL 1112	1 CHEM 1161	4		
MATH 1241	4 CHEM 1162	1		
	CHEM 1163	0		
	18	18	0	0

Year 2				
Fall	Hours Spring	Hours Summer 1	Hours Summer 2	Hours
PHTH 2350	4 PHTH 2515	4 Vacation	0 Co-op	0
PHTH 2210	4 HSCI 2000	1		
Electives	8 HLTH 1200 and HLTH 1201	3		
	Electives	8		
	16	16	0	0

Year 3				
Fall	Hours Spring	Hours Summer 1	Hours Summer 2	Hours
Co-op	0 PHIL 1165	4 Vacation	0 Vacation	0
	Selective	4-5		
	ENGW 3306	4		
	PHTH 2300	4		
	0	16	0	0

Year 4				
Fall	Hours Spring	Hours Summer 1	Hours Summer 2	Hours
HLTH 5450 or PHTH 4202	4 Co-op	0 Co-op	0 Vacation	0
PHTH 4540	4			
Elective ¹	4-5			
Selective ¹	3-5			
	16	0	0	0

Year 5				
Fall	Hours Spring	Hours		
PHTH 4120	4 HSCI 4720 or 4730	4		
HSCI 4700	0 Electives	12		
Selective	3-5			
Electives	8-9			
	16	16		

Total Hours: 132

¹ Credit count of selective/elective is dependent on credit count of selective/elective in same term, to avoid unintended credit overload.