

# BACHELOR OF SCIENCE IN HEALTH SCIENCE STUDIES

Program Contact: Clotilde Dudley-Smith (clotilde.dudley-smith@quinnipiac.edu) 203-582-7889

The Health Science Studies bachelor's degree program is designed for students entering the School of Health Sciences who have an interest in healthcare/health science–related career paths. Upon admission, students choosing this option are assigned to academic advisers who will assist them in designing a customized program to meet their career goals. A strong emphasis on individualized academic advising is at the core of this program.

First-year students are automatically enrolled in a career exploration course to help them increase the breadth and depth of their professional interests. By their second year, students choose between the Clinical Preparation Track, Exercise & Wellness Track, Human Movement Track, Sports Medicine Track or the most flexible, Health & Science Track. This decision may change at anytime during the undergraduate program. A select number of students accepted into the Health Science Studies major may be invited into the Physician Assistant (PA) Prep Track. The student-adviser relationship provides opportunity and support for each student while pursuing *their goals* within the Quinnipiac University educational experience.

All students are strongly encouraged to declare a minor early in their undergraduate program to help broaden their foundational knowledge and to help prepare them for their future careers or graduate programs. Qualified students have applied to and attended graduate programs *such as* medical school, dental school, physician assistant, physical therapy, occupational therapy, nutrition, social work, speech-language pathology, genetic counseling, medical laboratory sciences, pathology assistant or one of the many other healthcare-related programs. Successful students have been accepted into combination programs such as the Dual-Degree BS/MBA (4+1) (<http://catalog.qu.edu/graduate-studies/business/business-administration-mba/fast-track-combined-bs-mba/>) Health Care Management program, Accelerated Dual-Degree BS/JD (3+3) (<http://catalog.qu.edu/academics/dual-degree-ba-bs-jd-3-3/>) Pre-Law program and Accelerated Dual-Degree BS/MSW (3+2) (<http://catalog.qu.edu/health-sciences/health-science/hss-msw/>) Master of Social Work program. Other options are to prepare for application to the Accelerated BSN program for Second Degree Students (<http://catalog.qu.edu/nursing/nursing-accelerated-bsn/>) Nursing BS, or apply for a double major in health science studies along with psychology or sociology. The flexibility of the program allows students the option to graduate early by taking summer and/or J-term classes.

Students completing this bachelor's degree may also qualify for employment in the health science or healthcare-related professions with or without direct patient interaction. Some examples would be as a research assistant, biotechnology industry position, pharmaceutical/medical sales, community public health worker, environmental health advocate and more. We have also seen an increase in graduates of BS programs choosing to do a “gap” year and work entry-level jobs such as patient care associate, pharmacy technician and physical therapy assistant.

## Mission Statement

The mission of the Health Science Studies bachelor's degree program is to facilitate and enrich students' development into knowledgeable,

proficient and culturally competent interprofessional collaborators, who are leaders and lifelong learners, equally prepared for advanced healthcare education or direct entry into a health science career.

## BS in Health Science Studies Curriculum

A total of 120 credits is required for completion of the BS in Health Science Studies. Below is a sample first year plan of study.

Course	Title	Credits
<b>First Year</b>		
<b>Fall Semester</b>		
HSC 221	Introduction to Health Care	2
BIO 101 & 101L	General Biology I and General Biology I Lab	4
Select one of the following: <sup>1</sup>		4
CHE 110 & 110L	General Chemistry I and General Chemistry I Lab	
CHE 101 & 101L	Fundamentals of General, Organic and Biological Chemistry I and Fundamentals of General, Organic and Biological Chemistry I Lab	
EN 101	Introduction to Academic Reading and Writing	3
FYS 101	First-Year Seminar	3
<b>Credits</b>		<b>16</b>
<b>Spring Semester</b>		
HSC 202	Medical Terminology	2
BIO 102 & 102L	General Biology II and General Biology Lab II	4
Select one of the following: <sup>1</sup>		4
CHE 111 & 111L	General Chemistry II and General Chemistry II Lab	
CHE 102 & 102L	Fundamentals of General, Organic and Biological Chemistry II and Fundamentals of General, Organic and Biological Chemistry II Lab	
EN 102	Academic Writing and Research	3
UC Elective		3
<b>Credits</b>		<b>16</b>
<b>Total Credits</b>		<b>32</b>

1

Chemistry courses and additional math courses depend on intended professional goal or career plan and math placement score.

## Subsequent Course and GPA Requirements

Following the first year of study, Health Science Studies students meet with their academic advisers and develop a customized plan of study that incorporates their academic and career goals. During the first two years of study, students select a specific track. To remain in good standing within the program, students must maintain a minimum overall science GPA of 2.25 and earn 120 credits for degree completion. Course selections must fulfill the following:

Code	Title	Credits
	University Curriculum Requirements	46
	Foundational Science Core (additional biology, chemistry & physics)	13
	Health Science Track Specific Courses	19

Science Electives (e.g., health science studies, biology, biomedical sciences)	12
Open Electives	30
<b>Total Credits</b>	<b>120</b>

**HSC offers the following tracks:**

- Clinical Preparation Track (p. 7)
- Exercise and Wellness Track (p. 7)
- Health and Science Track (p. 8)
- Human Movement Track (p. 8)
- Sports Medicine Track (p. 8)
- Physician Assistant (PA) Preparation Track (Invitation Only) (p. 8)

**Student Learning Outcomes**

Upon completion of the Health Science Studies program, students will demonstrate the following competencies:

1. **Scientific Knowledge:** Demonstrate proficiency in understanding and explaining fundamental scientific principles in the disciplines of biology, chemistry and physics.
2. **Interprofessional Skills:** Effectively communicate information across the medical professions using advanced medical vocabulary.
3. **Teamwork:** Apply an advanced understanding of the interprofessional nature of healthcare.
4. **Health Systems:** Develop an advanced knowledge of the U.S. healthcare system and effectively describe challenges/issues that affect it.
5. **Evidence Informed Practice:** Critically evaluate biomedical information and sources to confirm validity and reliability.
6. **Responsible Citizen:** Evaluate the social, moral and ethical implications of scientific discoveries on medical practice.

**Admission Requirements**

Admission into the Health Science Studies program is dependent on the applicant's potential to pursue a university program and on past academic performance. The high school student applying for admission into the Health Science Studies program should have a strong background in the biological sciences. To remain in good standing within the program, the student must maintain a science GPA of 2.25. First-year biology (8 credits) must be successfully completed, at the latest, by the end of a student's sophomore year.

**Transfer Students from within Quinnipiac University**

Students currently attending Quinnipiac in another program may be accepted into the Health Science Studies program based upon a review of qualification by the program director. Students, with a science GPA of 2.25 minimum, may apply upon completion of at least one semester at Quinnipiac. Students transferring in as a junior (i.e., 57 credits or more) must have completed the general biology requirements, specifically, the equivalent of 8 credits of Quinnipiac's BIO 101 & BIO 102, or BIO 150 & BIO 151 or BIO 211 & BIO 212, prior to entry into the upper-class component of the program.

**Transfer Students from Other Colleges and Universities**

Transfer students from other colleges and universities may be accepted into the Health Science Studies program. These students must meet the program's performance standards and course requirements. For all transfer students, a minimum GPA of 2.67 is required. These students must have earned at least 8 credits of biology if entering their junior or senior year (i.e., having earned 57 credits or more), and performance standards of the program (science GPA minimum 2.25).

**HSC 202. Medical Terminology. 2 Credits.**

This course is a study of the principles of word analysis, word construction and word meanings as applied to medical and surgical terms. It includes a review of anatomy to indicate the relevancy of the terms being studied. The course is designed for first-year and sophomore health science students.

**Prerequisites:** None

**Offered:** Every year, All

**HSC 205. Age-Related Community Engagement Youth (HSC 505). 1 Credit.**

This one-credit course utilizes experiential learning through the implementation of a service program in collaboration with a local community partner. During this course, students will have the opportunity to learn about and be a contributor to community engagement projects. This course will promote the development of critical thinking and assessment skills through observation, research, design, and implementation of a program that addresses future program sustainability for youth.

**Prerequisites:** None

**Offered:** Every year, All

**HSC 206. Community Engagement Legacy Service Learning Seminar: International (HSC 506). 1 Credit.**

This one-credit course utilizes experiential learning through the implementation of a service program in collaboration with a local community partner. During this course, students will have the opportunity to learn about and be a contributor to community engagement projects. This course will promote the development of critical thinking and assessment skills through observation, research, design, and implementation of a program that addresses future program sustainability for older adults.

**Prerequisites:** None

**Offered:** Every year, All

**HSC 207. Interprofessional Community-Based Service Learning Seminar: Special Populations (HSC 507). 1-2 Credits.**

This course involves active learning implementing a program with a local community partner working with at-risk population. Students are required to participate in 10-15 hours of community engagement. They observe and apply the concepts of interprofessional health care in a community-based setting. Faculty with expertise in the analysis of community-based practice lead discussions and community engagement related to population health in the local community. This course may be taken more than once. Offerings include MTW section during Thanksgiving week.

**Prerequisites:** None

**Offered:** Every year, All

**HSC 210. Introduction to Evidence-Based Health Care. 3 Credits.**

Evidence-based practice in health care is the integration of the best available research with clinical expertise in the context of patient characteristics, culture and preferences. This is an introductory course outlining the processes associated with collecting and utilizing evidence to make clinical decisions.

**Prerequisites:** Course is designed for students in Online BS/HSC Completion Program. Take MA 275 or MA 206.

**Offered:** Every year, Fall and Spring

**HSC 214. Care and Prevention of Athletic Injuries. 3 Credits.**

This course is designed to provide an overview of the athletic training profession with an emphasis on the basic fundamentals utilized by the athletic trainer in prevention, recognition, care, treatment and rehabilitation of athletic injuries. Students may not also receive credit for AT 214.

**Prerequisites:** Take BIO 103 or BIO 102, BIO 102L or BIO 151, BIO 151L.

**Offered:** Every year, Fall and Summer

**HSC 214L. CPR, AED and First Aid. 1 Credit.**

Students learn principles of first aid and complete health provider certification in cardiopulmonary resuscitation and automated external defibrillator. (2 lab hrs.)

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103.

**Offered:** Every year, Fall and Spring

**HSC 215. Complementary and Alternative Medicine - a Health Science Perspective. 3 Credits.**

This course is beneficial for any student who is planning on working in health care. It explores the history of Complementary and Alternative Medicine (CAM), which the National Institutes of Health Center reports is currently being used by 40 percent of Americans. This course familiarizes the student with the more common forms of CAM and the rising trend of integrative medicine departments in hospitals in the U.S. Comparisons are made between conventional medicine and CAM.

**Prerequisites:** Designed for students in Online BS/HSC Completion Program. Take Eight credits of biology such as BIO 101/L, BIO 102/L, BIO 150, BIO 151, BIO 211/L or BIO 212/L.

**Offered:** Every year, Spring

**HSC 220. Health Care Essentials: Structure, Policy and Professionalism. 3 Credits.**

This course provides pre-health care professional students with an overview of the structure, systems and policies of health care delivery in the United States and includes discussions of the underlying values and political influences on quality, access and finance. Considerations are made to other nation's health care systems and how these systems address societal need. The goal of this course is to increase students' knowledge and abilities to analyze and address health care issues from the perspective of all stakeholders.

**Prerequisites:** Take BMS 117 or BIO 102, BIO 102L or BIO 103 or BIO 151 or BMS 162.

**Offered:** Every year, Fall and Spring

**HSC 221. Introduction to Health Care. 2 Credits.**

Designed for health science studies majors only in their first or second year of study, this course broadens the student's understanding of the many careers in health science. It introduces key concepts necessary to work in various health care professions, develops valuable skills to improve their employability and lays a foundation for further advanced studies in the major. For HSC first-year and sophomore students only.

**Prerequisites:** None

**Offered:** Every year, Fall and Spring

**HSC 225. Writing in the Health Professions. 3 Credits.**

This course reviews effective writing strategies that are employed in various types of published health care-related articles and media. Emphasis is placed on the students' written communication skills such as editing and clarifying of messages, and checking of accuracy of research sources. Students improve their proficiency in written communication to patients and to colleagues.

**Prerequisites:** Take BIO 101 BIO 101L; or BIO 150; or BIO 211 BIO 211L; and EN 101 EN 102; or EN 103H.

**Offered:** As needed

**HSC 230. Counseling and Teaching for Health Care Professionals. 3 Credits.**

This course provides a theoretical framework in counseling, education and overall communication for health professionals, including motivational interviewing. Students describe the importance of counseling and teaching for the health professional. The educational component includes teaching and communicating at the individual level and developing skills necessary for individual and group education and counseling.

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103 or BIO 150.

**Offered:** Every year, Fall and Spring

**HSC 240. Foundations of Pharmacy. 2 Credits.**

This hybrid course, beneficial for students interested in the health care professions, reviews the top 200 drugs, pharmacy math, pharmacy law, and hospital and retail pharmacy settings. Material required for the national PTCB exam (Pharmacy Technician Certification Board) is reviewed. Passing that exam confers the title of CPhT (Certified Pharmacy Technician), which enables students the opportunity to enter the pharmacy field if they choose to pursue that path.

**Prerequisites:** Take BIO 101, BIO 101L or BIO 103 or BIO 150; Take MA 107, MA 140, MA 141 or MA 275.

**Offered:** Every year, Fall and Spring

**HSC 250. Communication Disorders. 3 Credits.**

This course provides information regarding a variety of communication and swallowing disorders. Information regarding potential causes of disorders as well as intervention methods is presented. The various health care professions that work together on cases of speech, language, hearing and swallowing disorders are discussed.

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103 or BIO 151.

**Offered:** Every year, Fall and Spring

**HSC 262. Nutrition in Health and Illness. 3 Credits.**

This elective course focuses on the fundamentals of human nutrition in relation to disease prevention and treatment. This course applies practical nutrition concepts as vital tools for members of a health care team to achieve optimum patient care. Emphasis is placed on the science of nutrition, nutrition throughout the life cycle and clinical nutrition.

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103 or BIO 151.

**Offered:** Every year, All

**HSC 270. Pillars of Public Health: Saving the World on a Population Level. 3 Credits.**

This course defines the concept of public health, with a focus on introducing what public health is, its foundations and a brief discussion of the historical context. Course content includes basic material related to all six public health foundational areas: Biostatistics, Epidemiology, Environmental Health, Sociomedical Science, Health Policy and Management, and Population and Family Health, along with select specialized topics and current events.

**Prerequisites:** Course is designed for Online BS/HSC Completion Program Students. Take BIO 102, BIO 102L or BIO 103 or BIO 151.

**Offered:** Every year, Spring

**HSC 300. Special Topics in Health Science.****2 Credits.**

This Special Topics course covers emerging issues or specialized content in the area of health science or health care. Students examine multiple perspectives of the current or emerging topic through readings, discussions and projects. The course guides student discovery on how the issue has evolved, and examines current advancements, problems and breakthroughs.

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103 or BIO 151; and HSC 202.

**Offered:** As needed

**HSC 301. Health Care Challenges and Team-Based Solutions. 1 Credit.**

This interactive seminar focuses on common challenges in health care and how those challenges may be more effectively met utilizing a team approach to health care. The common health challenges are different each week, exploring the challenges that students may experience in their own personal, family or college life. The central outcomes of this course are to: 1) Recognize how a health care team can work together; 2) Develop strategies to react responsibly and ethically to health care issues (social intelligence); 3) Develop ideas for community action as a citizen, and 4) Identify the influence of all aspects of diversity on health care delivery.

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103 or BIO 151.

**Offered:** Every year, Fall and Spring

**HSC 305. Emotional/Social Intelligence for the Health Sciences. 2 Credits.**

This course provides the student with an appreciation and understanding of the role of emotional/social intelligence in everyday living and especially in the health sciences. Topics include how emotional intelligence differs from IQ, anatomy of emotions and the mind-body connection, education for and development of emotional literacy, assessing one's own social intelligence level, applying social intelligence skills to one's personal and professional lives. Personal assessments, small group experiential activities, case studies, journaling and project development are the essential methodology for this course. Prerequisite may be waived with permission of instructor.

**Prerequisites:** Take BIO 102 or BIO 103 or BIO 151.

**Offered:** Every year, Fall and Spring

**HSC 315. Bioethical Issues in the 21st Century. 3 Credits.****3 Credits.**

Students gain a solid understanding of bioethical principles and examine ethical dilemmas in medicine and the moral arguments that accompany them. Controversial bioethics issues such as assisted-suicide, stem-cell research, medical marijuana, organ donation and designer babies are explored through research, contemporary media and the students' own moral compasses. They study the role of public policy on bioethics and investigate cases that shaped the way modern medicine is practiced today. The course stimulates discussion leading to final group debate projects.

**Prerequisites:** Take EN 102 or EN 103H and BIO 102 or BIO 103 or BIO 151.

**Offered:** Every year, All

**HSC 317. Nutrition Across the Life Cycle. 3 Credits.****3 Credits.**

The class explores the nutritional needs of humans prior to and beyond adulthood to look at other portions of the life cycle. Beginning with women's nutritional needs for conception and throughout pregnancy and lactation, the class progresses to discuss the nutritional needs of infants, adolescents and older adults over age 65. Each cycle is discussed with an understanding of the physiological changes and the implications for nutritional factors.

**Prerequisites:** Take HSC 262.

**Offered:** Every year, Fall

**HSC 318. Community Nutrition. 3 Credits.****3 Credits.**

This course provides an introduction to the development of community nutrition programs including planning, needs assessment, implementation and evaluation. Students learn to describe nutrition programs and policies for varying population groups, including cultural, economic and social health practices. The implication of public policy legislation on food and nutrition services is introduced.

**Prerequisites:** Take HSC 262.

**Offered:** Every year, Spring

**HSC 320. The Environment and Human Health. 3 Credits.****3 Credits.**

This course examines the connection between our environment and human health and disease. Topics include an overview of toxicology, carcinogenesis, risk assessments, precautionary principle and bioaccumulation. Environmental connections to infectious diseases, emerging viruses, food production practices, loss of biodiversity, and endocrine disruptors also are discussed along with bioethical concerns of these topics. The course touches on health policies and regulations addressing environmental health issues. Students apply critical thinking skills to current environmental situations affecting our health as well as exploring the role individuals and professional health organizations have in accountability.

**Prerequisites:** Course is designed for Online BS/HSC Completion Program students. Take BIO 101, BIO 103, BIO 150 or BIO 211.

**Offered:** Every year, Spring

**HSC 324. Gut Microbes and Human Health. 3 Credits.****3 Credits.**

Maintaining a balance of healthy microbes can be the difference between health and disease. Our microbiome changes with the method of delivery (vaginal or C-section) as you entered this world, with what we eat, our lifestyles, stress and aging. Obesity, cardiovascular disease, cancer, autism and many other illnesses are now correlated with our gut bacteria. Explore this invisible world and learn about our health and microbes.

**Prerequisites:** Course is designed for Online BS/HSC Completion Program students. Take BIO 102 or BIO 103 or BIO 151 or BIO 212.

**Offered:** Every year, Spring

**HSC 326. Therapeutic Exercise. 3 Credits.****3 Credits.**

This course provides a systemic approach to therapeutic exercise program development. Students review exercise techniques, indications, contraindications, progression as related to injury, prevention, reconditioning, and return to work/participation guidelines. The course provides the student with a strong foundation in physical rehabilitative medicine and examines various goals concerning the return to functional activity.

**Prerequisites:** Take BIO 211, BIO 211L.

**Offered:** Every year, All

**HSC 330. Leadership: Creating Adaptive Cultures. 3 Credits.****3 Credits.**

In this course, students explore leadership theory and practice. This is a problem-based learning course that requires students to develop new insights around leadership and leading from the literature and from each other. Students spend the first week defining the term, and the subsequent weeks applying and refining their ideas through case-method vignettes and biographies. The culminating project of the course is to create a simple leadership development workshop, one that might be used by health care professionals.

**Prerequisites:** None

**Offered:** Every year, Fall

**HSC 334. Clinical Skills Patient Communication. 1 Credit.**

This 1-credit course is dedicated to teaching fundamental clinical skills for patient interviewing. Students learn how to foster patient relationships and gather information during a medical interview using verbal and nonverbal communication skills in a professional and respectful manner. This course is designed for junior or senior students with a premedical designation and prehealth students majoring in health science studies or biomedical sciences.

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103 or BIO 151, BIO 151L.

**Offered:** Every year, Fall and Spring

**HSC 350. Language Development. 3 Credits.**

This course explores all areas of typical language development from birth through adulthood. Students examine literacy development and how it is impacted by language development. Students learn how to obtain and analyze language samples.

**Prerequisites:** Take BIO 211, BIO 211L.

**Offered:** Every other year, Spring

**HSC 351. Pharmacological Interventions for Common Medical Conditions. 3 Credits.**

This course enables the student to recognize, evaluate and differentiate common systemic diseases, understand appropriate pharmacological interventions, understand the principles of pharmacology and common issues that arise when specific pharmacological agents are employed. Students may not receive credit for AT 351 also.

**Prerequisites:** Take BIO 212, BIO 212L.

**Offered:** Every year, Fall and Spring

**HSC 375. Immunology. 3 Credits.**

This immunology course examines topics related to the immune system, particularly the human immune system. The immune system is designed to differentiate self and non-self in order to prevent infection, disease and/or death. Students examine and discuss the current understanding of the immune response and discover why we are not sick all the time and how the body's immune system remembers "enemies" that it has seen in the past. This course covers the innate immune system, plus the two arms of the adaptive immune system—humoral immunity and cellular immunity. Immunodeficiencies, immunopathologies and immunotherapies also are discussed. Students may receive credit for BMS 375 or HSC 375, but not both.

**Prerequisites:** Take BIO 102 BIO 102L or BIO 103 or BIO 151.

**Offered:** Every year, Spring and Summer Online

**HSC 378. Vaccines and Vaccine-Preventable Diseases. 3 Credits.**

This immunology course involves the investigation of vaccines and vaccine-preventable diseases (VPDs). The purpose of the course is to examine and discuss the current understanding of vaccinations and how they work, as well as the historical and current implication of VPDs. Student gain knowledge about VPDs, the childhood vaccination schedule, why they are still necessary and, most importantly, how to explain why they are safe, and to be able to debunk the current myths and misconceptions regarding vaccines. Students may only take one of the following for credit: BMS 378 or HSC 378.

**Prerequisites:** Take BIO 102 or BIO 103 or BIO 151.

**Offered:** Every year, Summer Online

**HSC 380. International Health Care - Field Research. 3 Credits.**

This course provides health science students with an overview of the health care structure, systems and delivery in another country. Field research is conducted during a semester break trip, during which time students interact with the local community members and health professionals. Prior to the trip, students research the factors that influence the quality, access and finance of health care. Common health issues and their social determinants are explored as they relate to the subpopulation of interest. The goal of this course is to increase students' knowledge and abilities to analyze and address health care issues specific to a population while in the field.

**Prerequisites:** Take BIO 101, BIO 102 or BIO 103 or BIO 150, BIO 151 and MA 275 or MA 206.

**Offered:** Every year, Fall and Spring

**HSC 388. EMT I Training. 2 Credits.**

This course includes both lecture and clinical experience, and provides students with an opportunity to develop the knowledge and skills required for Emergency Medical Technician National Certification. Successful completion of HSC 388-389 (two-semester sequence) and fulfillment of the state-mandated hours of instruction are required to be eligible for certification. This course must be taken in conjunction with HSC 388L.

**Prerequisites:** Take BIO 103, BIO 102, BIO 102L or BIO 151.

**Corequisites:** Take HSC 388L.

**Offered:** Every year, Fall

**HSC 388L. EMT I Training Lab. 1 Credit.**

This is the laboratory component of HSC 388. It includes learning the techniques necessary to develop the knowledge and skills required for Emergency Medical Technician National Certification. This course must be taken in conjunction with HSC 388.

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103 or BIO 151.

**Corequisites:** Take HSC 388.

**Offered:** Every year, Fall

**HSC 389. EMT Training II. 2 Credits.**

This course includes both lecture and clinical experience, and provides students with an opportunity to develop the knowledge and skills required for Emergency Medical Technician National Certification. Successful completion of the HSC 388-389 (two-semester sequence) and fulfillment of the state-mandated hours of instruction are required to be eligible for certification. This course must be taken in conjunction with HSC 389L.

**Prerequisites:** Take HSC 388, HSC 388L.

**Corequisites:** Take HSC 389L.

**Offered:** Every year, Spring

**HSC 389L. EMT Training II Lab. 1 Credit.**

This is the laboratory component of HSC 389. It includes learning the techniques necessary to develop the knowledge and skills required for Emergency Medical Technician National Certification. This course must be taken in conjunction with HSC 389.

**Prerequisites:** Take HSC 388, HSC 388L.

**Corequisites:** Take HSC 389.

**Offered:** Every year, Spring

**HSC 397. Pre-Health Professions Clinical Affiliation. 3 Credits.**

This course provides an opportunity to observe a health professional in a student's field of interest for a minimum of 36 hours. Students observe social, ethical and medical issues in a clinical setting. Professional dress is required, and some sites may require a background check. Students are responsible to arrange their site and are provided with guidance and contacts to do so. For HSC or BMS majors only, Junior or Senior Status, with minimum 2.5 GPA

**Prerequisites:** Take BIO 102, BIO 102L or BIO 103 or BIO 151.

**Offered:** Every year, Fall and Spring

**HSC 398. Health Professions Career Practicum. 1-3 Credits.**

This course is designed to provide an introduction to a health sciences career through supervised fieldwork. Course involves supervised work (paid or unpaid) in an employment setting and career development research and reflection. A one, two or three-credit pass/fail course. A maximum of 6 credits can be obtained through pass/fail courses (FLW and workshop courses including HSC 398).

**Prerequisites:** Take BIO 102 or BIO 103 or BIO 151.

**Offered:** Every year, Summer

**HSC 399. Health & Science Studies Independent Study. 1-6 Credits.**

**Prerequisites:** None

**HSC 401. Introduction to Medical Problem-Solving. 3 Credits.**

This course offers pre-medical and pre-physician assistant students the tools necessary for developing a systematic approach to a patient and his or her medical condition. Students learn to access and evaluate the medical literature for identification of the signs and symptoms of disease presentation, the components of a history and physical, and the understanding of a differential diagnosis. In addition, students are taught the basis for developing a patient treatment plan. Students may not receive credit for both PY 401 and HSC 401.

**Prerequisites:** Take BIO 212. Shadowing in a health care setting is highly recommended prior to taking this course.

**Offered:** Every year, Fall and Spring

**HSC 460. Advanced Nutrition. 3 Credits.**

This advanced-level food and nutrition course examines the composition and physiological role of nutrients and their relationships to health and the body. Macronutrient metabolism as well as a detailed examination of the role of vitamin and mineral metabolism are explored. Current nutrition issues of supplement use, weight management, sports nutrition, nutritional ecology and the application of nutrition directly to food and its preparation also are addressed.

**Prerequisites:** Take AT 330 or HSC 262.

**Offered:** Every year, Spring

**HSC 498. Independent Study in Health Sciences. 1-4 Credits.**

This course consists of health sciences content not offered by another QU catalog course. It must involve contact hours and scholarly activities equivalent to any regularly offered course. This course often includes a review of the scientific literature in the field of the research project and creating a "product," such as a term essay, a series of short papers, laboratory or project reports, a portfolio or presentation at a scientific meeting. Students cannot register online; registration is via a paper form only. BMS students may take up to 8 credits of BMS 482, BMS 483, BMS 498, BMS 499, HSC 498, HSC 499.

**Prerequisites:** None

**Offered:** As needed

**HSC 505. Interprofessional Community-Based Service Learning Seminar: Age-Related (HSC 205). 1 Credit.**

This course provides an opportunity to engage in active learning, implementing a program with a local community partner working with children/youth, adults or older adults. Students are required to participate in 10-15 hours of community engagement to observe and apply the concepts of interprofessional health care in a community-based setting. Community experience is supervised by faculty with expertise in analysis of community-based practice. Classroom/community engagement schedules will be determined. Course may be taken more than once.

**Prerequisites:** None

**Offered:** Every year, All

**HSC 506. Interprofessional Community-Based Service Learning Seminar: International (HSC 206). 1 Credit.**

Students observe and apply various health/wellness concepts in an international community-based setting. Students are required to spend a minimum of 15 hours at an international site to engage in active learning by implementing a program with an international community partner. Course is taught by faculty with expertise in the analysis of community-based practice. Classroom/community engagement schedules will be determined. This course may be taken more than once. Application process for international experiences required.

**Prerequisites:** None

**Offered:** Every year, All

**HSC 507. Interprofessional Community-Based Service Learning Seminar: Special Populations (HSC 207). 1-2 Credits.**

This course involves active learning implementing a program with a local community partner working with at-risk population. Students are required to participate in 10-15 hours of community engagement to observe and apply the concepts of interprofessional health care in a community-based setting. Faculty with expertise in the analysis of community-based practice lead discussions and community engagement related to population health in the local community. This course may be taken more than once. Offerings include MTW section during Thanksgiving week.

**Prerequisites:** None

**Offered:** Every year, All

## Pre-Medical Studies Program

Students majoring in Health Science Studies, Biology, Biomedical Sciences or the pre-health track of Behavioral Neuroscience may fully participate in the pre-medical studies program. The curriculum in this degree program can fulfill the science prerequisites for most professional schools. Students should refer to Pre-Medical Studies (<http://catalog.qu.edu/academics/premedical-studies/>) for more information about the pre-medical studies program and contact the Health Professions Advisory Committee for further academic advising.

## Seamless Transfer Agreement with Gateway Community College (GCC), Housatonic Community College (HCC) and Norwalk Community College (NCC)

Under this Transfer Agreement, GCC, HCC and NCC graduates will be guaranteed admission into a bachelor's degree program with third year (junior) status at Quinnipiac University on the condition that they:

- Graduate with an associate in arts, an associate in science in business, College of Technology engineering science, nursing or an allied health degree with a minimum cumulative GPA of 3.00 (this may be higher in specific programs).
- Satisfy all other Quinnipiac University transfer admission requirements and requirements for intended major.

Quinnipiac University agrees to accept the general education embedded in these associate degree programs in accordance with Quinnipiac preferred choices for general education as meeting all the requirements of its undergraduate general education except for the Integrative Capstone Experience and where courses are encumbered by the major (e.g., General Chemistry for the Disciplinary Inquiry Natural Science requirement for a Biochemistry major).

## Suggested Transfer Curriculum for BS in Health Science Studies

A minimum of 60 credits is required for transfer into the BS in Health Science Studies program. Below is a sample plan of study for the first two years.

Course	Title	Credits
<b>First Year</b>		
<b>Fall Semester</b>		
English		3
General Biology with Lab		4
General Chemistry with Lab		4
Introduction to Health Care		2
Math - Statistics		3
<b>Credits</b>		<b>16</b>
<b>Spring Semester</b>		
English II		3
General Biology II with Lab		4
General Chemistry II with Lab		4
Medical Terminology		2
Elective		3
<b>Credits</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Anatomy & Physiology I with Lab		4
General Physics with Lab		4
Elective		3
Elective		3
<b>Credits</b>		<b>14</b>
<b>Spring Semester</b>		
Anatomy & Physiology II with Lab		4
Elective		3
Elective		3
Elective		3
Elective		2
<b>Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>61</b>

## Clinical Preparation Track

This track provides students with a solid foundation in patient communication and evidence-based medicine. This foundation helps to prepare students for graduate education in a variety of medical fields, such as (but not limited to) MD, DO, Dentistry, Pharmacy, Podiatry, Optometry, Audiology, Speech Language Pathology, Genetic Counselor, Anesthesiologists' Assistant, Pathologists' Assistant, Physician Assistant, and/or Accelerated Nursing programs. Students in the Clinical Preparation Track are required to take the following courses:

Code	Title	Credits
<b>Core Requirements (8 credits)</b>		
HSC 202	Medical Terminology	2
HSC 220	Health Care Essentials: Structure, Policy and Professionalism	3
HSC 221	Introduction to Health Care	2

HSC 334	Clinical Skills Patient Communication	1
<b>Choose one of the following courses (3 credits):</b>		<b>3</b>
HSC 380	International Health Care - Field Research	
HSC 388 & 388L	EMT I Training and EMT I Training Lab	
HSC 397	Pre-Health Professions Clinical Affiliation	
<b>Choose 8 credits from the following courses:</b>		<b>8</b>
HSC 205	Age-Related Community Engagement Youth (HSC 505)	
HSC 206	Community Engagement Legacy Service Learning Seminar: International (HSC 506)	
HSC 207	Interprofessional Community-Based Service Learning Seminar: Special Populations (HSC 507)	
HSC 210	Introduction to Evidence-Based Health Care	
HSC 230	Counseling and Teaching for Health Care Professionals	
HSC 301	Health Care Challenges and Team-Based Solutions	
HSC 305	Emotional/Social Intelligence for the Health Sciences	
HSC 315	Bioethical Issues in the 21st Century	
HSC 380	International Health Care - Field Research	
HSC 388 & 388L	EMT I Training and EMT I Training Lab	
HSC 389 & 389L	EMT Training II and EMT Training II Lab	
HSC 397	Pre-Health Professions Clinical Affiliation	
HSC 401	Introduction to Medical Problem-Solving	
<b>Take 12 credits of science electives</b>		<b>12</b>
<b>Take 30 credits of open electives</b>		<b>30</b>

## Exercise & Wellness Track

This track provides students with a foundation in exercise prescription and nutrition. This foundation helps prepare students for graduate studies in areas such as Physical Therapy, Occupational Therapy, Exercise Physiology, Biomechanics or Nutrition/Dietetics. Students interested in a more in-depth exploration of nutrition may consider earning a minor in nutrition (<http://catalog.qu.edu/health-sciences/rehabilitation-health-wellness/nutrition-minor/#text>). Students in the Exercise & Wellness Track are required to take the following courses:

Code	Title	Credits
<b>Core Requirements (13 credits)</b>		
HSC 202	Medical Terminology	2
HSC 220	Health Care Essentials: Structure, Policy and Professionalism	3
HSC 221	Introduction to Health Care	2

HSC 262	Nutrition in Health and Illness	3
HSC 326	Therapeutic Exercise	3
<b>Choose two of the following courses:</b>		<b>6</b>
AT 330	Nutrition for Sport and Fitness	
AT 440	Biomechanics	
BMS 300 & 300L	The Physiology of Human Performance I and The Physiology of Human Performance I Lab	
BMS 301 & 301L	Physiology of Human Performance II and Physiology of Human Performance II Lab	
HSC 214	Care and Prevention of Athletic Injuries	
HSC 230	Counseling and Teaching for Health Care Professionals	
HSC 460	Advanced Nutrition	
<b>Take 12 credits of science electives</b>		<b>12</b>
<b>Take 30 credits of open electives</b>		<b>30</b>

## Health & Science Track

The most flexible curriculum to prepare for careers or graduate studies in one of the many other fields a student may go in with this degree, such as Health Care Management, Health Science Research, or to tailor one of the above tracks to best meet their academic needs. Students in the Health & Science Track are required to take the following courses:

Code	Title	Credits
<b>Core Requirements</b>		
HSC 202	Medical Terminology	2
HSC 220	Health Care Essentials: Structure, Policy and Professionalism	3
HSC 221	Introduction to Health Care	2
<b>Take 6 credits of health science studies electives</b>		<b>6</b>
<b>Take 18 credits of science electives</b>		<b>18</b>
<b>Take 30 credits of open electives</b>		<b>30</b>

## Human Movement Track

The Human Movement Track provides the foundation and application of knowledge related to human movement across the lifespan. The curricular model focuses on developing the early thought processes and disciplinary content for many fields in the health professions related to movement. Through the scientific understanding of human anatomy, kinesiology and biomechanics, students advance toward exploring methods of maintaining healthy movement, preventing disability, and initiating an assessment of movement. The culmination of the track involves the application of human movement in clinical practice, through research in motion analysis, or in the community through the promotion of healthy living. Career paths include continuing on in fields or graduate studies related to Physical Therapy, Occupational Therapy, Physician Assistant, Orthopedics or Biomechanics.

Code	Title	Credits
<b>Program Required Courses</b>		
HSC 202	Medical Terminology	2

HSC 220	Health Care Essentials: Structure, Policy and Professionalism	3
HSC 221	Introduction to Health Care	2
<b>Track Required Courses</b>		
HSC 210	Introduction to Evidence-Based Health Care	3
HSC 290	Introduction to Kinesiology	3
AT: Movement Assessment		3
BMS 301	Physiology of Human Performance II (No Lab)	3
AT 440	Biomechanics	3
<b>Take 12 credits of science electives</b>		<b>12</b>
<b>Take 27 credits of open electives</b>		<b>27</b>

## Sports Medicine Track

The Sports Medicine Track is grounded in science, targeted toward students interested in healthcare professions, especially those students who have an interest in working either in athletic settings or with a physically active population. The curricular model focuses on developing the early thought processes and disciplinary content for many fields in the health professions related to sports medicine and working with an active and/or athletic population (traditional sports, tactical athletes, performing artists, etc.). Career paths include continuing on in fields or graduate studies related to Athletic Training, Physical Therapy, Physician Assistant, Orthopedics, Orthotist, Paramedics, Strength and Conditioning, or Sports Performance.

Code	Title	Credits
<b>Program Required Courses</b>		
HSC 202	Medical Terminology	2
HSC 220	Health Care Essentials: Structure, Policy and Professionalism	3
HSC 221	Introduction to Health Care	2
<b>Track Required Courses</b>		
HSC 210	Introduction to Evidence-Based Health Care	3
HSC 290	Introduction to Kinesiology	3
AT 216	Emergency Management of Athletic Trauma	2
AT 481	Strength Training and Conditioning for the Athletic Trainer	2
BMS 301	Physiology of Human Performance II (No Lab)	3
<b>Take 12 credits of science electives</b>		<b>12</b>
<b>Take 28 credits of open electives</b>		<b>28</b>

## Physician Assistant (PA) Preparation Track (Invitation Only)

A limited number of students will be invited into the Physician Assistant (PA) Prep Track. This track is a means for well-qualified students to advance their interests in the PA profession but were not accepted into the Entry-Level Master's in Physician Assistant (ELMPA) program. During the junior year, depending upon the number of seats available in the ELMPA cohort, approximately 3-5 students will be selected to transition into the ELMPA program. To be considered for transfer into ELMPA, students in the PA Prep program must meet established



qualifications. The remaining PA Prep students not admitted into the ELMPA program will continue to follow a curriculum that mirrors that of the ELMPA program. As a result, the PA Prep students will have a robust CASPA (Central Application Service for Physician Assistants) application making them a competitive applicant for other PA programs. Students interested in the PA profession who are not invited into the PA Prep Track may take similar courses via the Clinical Preparation Track. Students invited to the PA Prep Track will be required to take the following courses:

Code	Title	Credits
<b>Core Requirements (19 credits)</b>		
PY 104	Physician Assistant Seminar I - Orientation to the Profession	1
PY 204	Physician Assistant Seminar II - The Interdisciplinary Team	1
HSC 202	Medical Terminology	2
HSC 220	Health Care Essentials: Structure, Policy and Professionalism	3
HSC 388 & 388L	EMT I Training and EMT I Training Lab	3
HSC 389 & 389L	EMT Training II and EMT Training II Lab	3
HSC 397	Pre-Health Professions Clinical Affiliation	3
HSC 401	Introduction to Medical Problem-Solving	3
<b>Take 12 credits of science electives</b>		<b>12</b>
<b>Take 30 credits of open electives</b>		<b>30</b>